A Study of Materiality Auditing:
Case Study from Libya

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Submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy

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Dedication

It is my pleasure to dedicate this study to my supervisors;

Dr. Soheila Mirshekary

&

Associate Professor, Steven Dellaportas

for their friendly supervision and encouragement
Acknowledgments

All thankfulness and gratefulness be to Allah
who guided and assisted me to complete this study.

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<td>AARF</td>
<td>Australian Accounting Research Foundation</td>
</tr>
<tr>
<td>AASB</td>
<td>Auditing and Assurance Standards Board</td>
</tr>
<tr>
<td>ACCA</td>
<td>Association of Chartered Certified Accountants</td>
</tr>
<tr>
<td>ACPA</td>
<td>Association of Certified Public Accountants</td>
</tr>
<tr>
<td>AD</td>
<td>Anno Domini</td>
</tr>
<tr>
<td>ASB</td>
<td>Auditing Standards Board</td>
</tr>
<tr>
<td>ASCA</td>
<td>Arab Society for Certified Accountants</td>
</tr>
<tr>
<td>ASRB</td>
<td>Accounting Standards Review Board</td>
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<tr>
<td>AUASB</td>
<td>Auditing and Assurance Standards Board</td>
</tr>
<tr>
<td>BCE</td>
<td>Before the Common Era</td>
</tr>
<tr>
<td>CAAS</td>
<td>Committee of Accounting and Auditing Standards</td>
</tr>
<tr>
<td>CPA</td>
<td>Certified Public Accountant</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FASB</td>
<td>Financial Accounting Standards Board</td>
</tr>
<tr>
<td>GAAP</td>
<td>Generally Accepted Accounting Principles</td>
</tr>
<tr>
<td>GBOT</td>
<td>General Board of Ownership Transfer</td>
</tr>
<tr>
<td>GCCAAAO</td>
<td>Gulf Countries Cooperation Accounting and Auditing Organization</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Production</td>
</tr>
<tr>
<td>IAS</td>
<td>International Accounting Standards</td>
</tr>
<tr>
<td>IFAC</td>
<td>International Federation of Accountants</td>
</tr>
<tr>
<td>LAAA</td>
<td>Libyan Accounting and Auditing Association</td>
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<tr>
<td>LSM</td>
<td>Libyan Stock Market</td>
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<td>LYD</td>
<td>Libyan Dinar</td>
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<tr>
<td>PCAOB</td>
<td>Public Company Accounting Oversight Board</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>PIB</td>
<td>Privatisation and Investment Board</td>
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<td>SAB</td>
<td>Staff Accounting Bulletin</td>
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<td>SAS</td>
<td>Statement on Auditing Standards</td>
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<td>SOCPA</td>
<td>Saudi Organization for Certified Public Accountants</td>
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<td>SPSS</td>
<td>Statistical Package for the Social Science</td>
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<td>SQ</td>
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<td>UK</td>
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Abstract

Materiality is one of the basic and major concepts of auditing. Auditors use this concept to confirm whether the information presented in financial statements represents the company’s true financial position. The large numbers of financial transactions that occur in one company make it difficult for auditors to gain sufficient evidence to enable them to give an opinion on financial statements; however, the concept of materiality helps to overcome this.

Recent auditing research points out that it is becoming increasingly difficult to ignore the importance of the materiality concept in the auditing profession, especially after the collapse of large corporations, such as Lehman Brothers in 2008 and General Motors and Washington Mutual in 2009. Further, assessing material information within financial statements is becoming the audit profession’s biggest challenges. This is due to a number of factors that influence materiality decisions, such as user groups of financial statements, legal requirements and regulatory requirements (quantitative and qualitative factors).

In this study, an exploratory design and quantitative approach were used to explore materiality auditing through a case study in Libya. This study aimed to answer the question, ‘What are the main issues of materiality auditing in Libya from the viewpoint of Libyan external auditors?’ The results define the issues as the Libyan auditors’ attitudes towards the materiality concept, the source of materiality guidelines, quantitative forms and factors for materiality decisions, qualitative factors for materiality decisions and the relationship between the quantitative and qualitative materiality factors.

An empirical part of this study and data collection relied on sending questionnaires to a sample of 400 Libyan external auditors between 8 March and 20 May 2012. These were distributed in five main Libyan cities. Statistically, descriptive analysis and inferential statistical techniques (including the one sample t-test, Binomial test, Friedman test, Kendall’s W-test, factor analysis and one-way ANOVA) were used to address the research question.

The results demonstrate strong agreement between Libyan external auditors about the materiality concept, specifically regarding the importance, difficulties and auditor’s
responsibility. As the materiality concept and its issues have received considerable consideration from recent auditing research, this study also provides empirical evidence for the awareness of materiality auditing among Libyan external auditors.

Although Libyan auditors are thought to have adopted the international auditing standards, the findings support the view that not all Libyan auditors follow these standards and that these standards are not beneficial to Libyan auditors. Thus, the perspective of participants is that the national standards must be the key source for materiality auditing guidelines. Further, the participants rated the income statement and balance sheet as the most important financial statements for making materiality decisions.

The findings also reveal that all three forms of quantitative factors (absolute value, item’s position in the financial statement and percentage of the item being audited) have been adopted by the participants. More specifically, the percentage of the item being audited is the most important quantitative form, followed by the item’s position in the financial statements and, finally, the absolute value.

The results also identified 16 qualitative factors as being important factors that affect the materiality auditing decisions in Libya. In addition, a new contribution was added by categorising these factors into three main groups, including accounting policies, auditing history and managerial policies and company characteristics.

This study was able to explore the relationship between the quantitative and qualitative factors in terms of materiality auditing decisions. Although the results indicate that both quantitative and qualitative factors have a significant effect on materiality decisions in Libya, the group of qualitative factors (relating to company characteristics) is becoming more important than the other factors. The results also support the view that there is a necessity to separate the qualitative from the quantitative factors during the assessment of materiality auditing decisions.

Overall, the results from this thesis provide sufficient evidence to support the need for such auditing research, and future complementary studies on materiality auditing are suggested.
Chapter 1: Introduction and Overview of the Research

1.1 Introduction

An audit is a group of correlated processes, including planning and obtaining evidence to evaluate and support the auditor’s opinion about the financial transactions of the client’s entity (Tatum and Munter 2003). One aim of an audit is to increase the confidence that users have in financial statements. Therefore, when checking financial transactions, auditors make numerous judgements about the quality of transactions and determine whether any considerable errors exist (Al-Ajmi 2009; Schmutte and Duncan 2009).

During the early period of the last century, the primary objective of an audit was to disclose errors and fraud by auditing all items in the financial transaction. Consequently, the auditors were responsible for the detection of all errors and fraud (Lakis 2008). Eventually, due to the sheer volume of transactions made by ever-growing companies, detection and accuracy were replaced with truth and fairness (fair presentation). As mentioned by Hamilton and Ó hÓgartaigh (2009), the concepts of truth and fairness replaced the auditors’ absolute opinion that the financial statements were free from all misstatements and fraud. These concepts indicate that a true and fair view can be used to ensure that financial transactions present material items that affect financial statement results. They ensure that financial transactions are not absolute but have no material misstatements that may affect users’ decisions. Thus, the audit criteria require auditors to obtain the largest possible quantity of attestation proof to verify truth and fairness of items listed in financial statements to help build trust in financial transactions (Knechel et al. 2010).

The issue above highlights how auditors must determine and examine the important items that affect the users of an audit report to ensure that financial statements present the most important items and have no errors that could affect user decisions. Consequently, the task of an auditor is to determine the scope of accuracy and fairness of financial transactions in showing the financial situations and results (Teck-Heang and Ali 2008). To satisfy these requirements, auditors need to check financial statements and their source documents, such as cash receipts, customer invoices and notes for loans. The main audit task is to obtain high-
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quality evidence in order to make accurate decisions about truth (fairness) of financial statements. However, the task of gathering proof depends on some other factors, such as the size of financial transactions and personal judgement.

According to Zadek and Merme (2003), due to the large volume, auditors cannot check all financial transactions. Therefore, auditors need to determine which items deserve attention, as some will need more time than others will and some might not affect the users at all. For the reasons noted above, auditors rely on the concept of materiality to make their decisions in relation to what items in the financial transactions are most important. They then gather evidence for the audit process and preparation of the final audit report (Colbert 2000).

The concept of materiality assists auditors to find an appropriate sample to audit; the material transactions require an increase of the sample size and more evidence to ensure that important items are presented fairly. Teck-Heang and Ali (2008) examined the association between the material items and sample size during audit processes. They found that, in the planning stage, the materiality concept can guide auditors to sufficient samples that include material items, such as items that have high value or items over a certain amount. The first step of the planning stage is to make a decision on the materiality level and then decide sample size for the audit.

An empirical study by Higgins and Nandram (2009) supported the above studies on the aim of an audit. The study confirmed that the aim of an audit is to ensure that almost all financial transactions are free from material errors and fraud and present a true financial position of the company. However, due to an increase in the volume of transactions within financial statements, auditors are unable to investigate all transactions due to time and cost constraints. Thus, the auditors focus on items that affect financial statements directly and select a sample to inspect the accuracy of those financial transactions.

1.2 The Concept of Materiality and Auditors’ Responsibilities

The materiality concept plays an important role in both accounting and auditing. The concept of materiality in accounting refers to the least amount of errors that could affect the decisions of financial statement users, while referring to important items that affect financial statement
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results (Holstrum and Messier 1982). Chong (1992, p. 9) indicated that the materiality concept refers to the fact that ‘an item is thus considered material if its non-disclosure or disclosure in the financial statements would affect the decisions of preparers, auditors and users of such statements’. In addition, Chong (1992) mentioned that there are quantitative and qualitative factors that must be considered by auditors before obtaining the material items. These included the effect on net income and personal judgement.

Wielligh (2005) pointed out that the ultimate objective of a materiality audit is to determine the items that have an effect on user decisions. He stated that materiality relates to the information, the omission or misstatement of which could affect the economic users’ decisions. Although, Iyer and Whitecotton (2007, p. 77), in their study, indicated that there are few studies obviously defining the materiality concept, but defined materiality as ‘a concept integrally linked to the fairness of corporate financial reporting’. However, this view does not provide a satisfactory definition of the materiality concept and further studies are encouraged. Schmutte and Duncan (2009) and Sian and Roberts (2009) stated that increases in the size of financial transactions and material misstatements in financial statements affect user decisions. Consequently, auditors face difficulties ensuring that all important items of those financial transactions are true and fair. Financial statement users argue that financial reports have become more complex and too long, so auditors are requested to focus only on the important information.

An important element of audit assessment is that if it affects financial statement results, then it will affect the decisions of financial statement users. As a result, this situation requires the concept of a materiality audit and the factors determining it. Auditors can certify financial statements as true and fair if the information is free from misstatements that could influence the economic decisions of users taken based on financial transactions. Vanasco et al. (2000) pointed out that information does not have the same importance for its users; it differs in value and continues increasing in size and type. The different needs of financial statement users require more attention to be focused on the materiality concept.

According to Iskandar and Iselin (1996), the information shown in materiality must be checked analytically through the stages of the audit, as it has a great effect on audit results. Conversely, the concept of materiality in an audit can affect other considerations, such as
personal judgement, legal requirements and aspects of using financial statements (Chen et al. 2008).

1.3 Personal Judgement and Materiality Factors in the Auditing Profession

Personal judgement can play a fundamental role in determining the importance of materiality, as it can be affected by expert experience, the industrial environment and available audit standards. In their study, Marshall, Smith and Armstrong (2006) indicated that assessment can be affected by the degree of an auditor’s personal judgement, which, in turn, is affected by their knowledge and experience. Occasionally, a weak audit is not executed pursuant to professional criteria, but the problem lies in personal judgement (professional doubt). Thus, in the past, auditors usually relied on personal judgement of the primary level of materiality in the stages of planning an audit, and this level of materiality could be modified during audit processes (Woodhead 1997).

However, Wielligh (2005) stated that the agreement on a unified concept of materiality faces several difficulties represented by many variables or factors affecting the importance of the materiality of items stated in financial statements and auditor judgements. These factors can be categorised as quantitative and qualitative. The quantitative factors include the absolute value of the items and percentages related to the net income and the qualitative factors include expert guidance and type of industry (Kinney 2005).

Past auditing research mainly focused on the quantitative factors in order to determine material items in the financial statements. They suggested different trends and preferences for different methods of measurement of material information, such as an absolute value, the item’s position in the financial statement and the percentage of the item being audited relative to the income statements or balance sheet (e.g., 5–10 per cent of the net income or 5–10 per cent of total assets) (Charles 1990; Chong 1992). These quantitative estimates have been followed in order to identify material items that have an effect on the financial statement results.

Nelson et al. (2005) studied the quantitative materiality approaches and stated that the quantitative materiality decisions in the auditing profession were based on two alternative
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assessment approaches, including the cumulative and the current period approaches. In addition, they pointed out that:

The cumulative approach compares to net income the total amount of misstatement existing at the end of the current period, while the current period approach compares to net income the amount of misstatement added in the current period. (Nelson et al. 2005, p. 898)

This means that the decisions of materiality auditing rely only on the net income (income statement). However, there are important quantitative materiality factors that relate to the balance sheet. Several previous and recent auditing research reports suggested some important quantitative factors that come from the balance sheet, such as percentage of total assets or owners’ equity (Chong 1992; Chen et al. 2008; Juma’h 2009). Moreover, in recent discussion relating to the quantitative materiality factors, the Australian Accounting Standards Board (2010) in Auditing and Assurance Standards Board (AASB) 1031 stated that:

In determining whether the amount of an item or an aggregate of items is material:

The amount of an item or an aggregate of items relating to the statement of financial position is compared with the more appropriate of:

i) The record amount of equity.

ii) The appropriate asset or liability class total.

By the end of the twentieth century, auditing research paid more attention to the materiality auditing issue and its factors. The discussion and investigation argued that materiality auditing decisions have also been affected by other qualitative factors. Emmanuel et al. (1999) investigated whether one of the quantitative materiality factors (10 per cent rule) provides an adequate disclosure in the United Kingdom. They investigated a sample of 86 companies’ reports for the years 1989, 1992 and 1995. The results indicated that using the 10 per cent rule did not provide adequate information relating to the material items in the financial statements. This means that depending only on the quantitative estimates could not provide reasonable decisions about the material information in the financial statements and the truth and fairness of these statements.
Global financial scandals (e.g., the collapse of Enron, WorldCom and Lehman Brothers) have raised a number of questions about the role and value of the auditing profession. Therefore, several studies (Zadek and Merme 2003; Carcello and Nagy 2004; Messier et al. 2005; Meyer et al. 2007; Corte et al. 2010) indicated that the auditing profession should revise its guidelines and standards and pay more attention to the qualitative context. Company size is one of the qualitative factors that might affect the auditors in their materiality decisions. Carcello and Nagy (2004) examined a sample of 320 accounting and auditing enforcement releases issued by the Security Exchange Committee between 1990 and 2001. The results pointed out that company size affects the auditors’ experience regarding the material misstatements.

The relationship between the auditor and client (e.g., first time being audited, regular client) can also affect the type of auditing report produced. Meyer et al. (2007) investigated the effect of this relationship on the auditing report. They selected a sample of 337 companies, which were audited during the period 1983 and 1987, and they argued that the auditors who audited the company in the past could identify the material information but that association might negatively affect the auditor’s report.

Corte et al. (2010) explored the effect of using qualitative materiality factors on the auditing profession. They questioned a sample of 352 external auditors and 121 accountants (preparers of financial statements). The results pointed out that the use of qualitative materiality factors could improve the quality of the financial statements being published, as well as the quality of the auditing profession’s outcomes relating to the material information. However, the study did not interpret how and which factors could improve the quality of the auditing profession.

Although several auditing studies attempted to address issues regarding the qualitative factors that affect materiality auditing decisions, those attempts did not provide adequate information on the possible number of these factors and whether all qualitative factors have the same effect on materiality auditing decisions. Therefore, suggestions for future studies relating to qualitative factors have been strongly recommended through past and recent auditing research.
1.4 Research Problem

The major aim of financial statements is to derive relevant information that will assist their users in making economic decisions. These financial statements are prepared by accountants whose task is to provide and disclose important financial information (Cassar 2009). However, accountants, as preparers of financial statements, may sometimes face pressure from their managers to present information that supports the company’s financial position (Shafer 2002). Thus, the need for an independent party who can approve the presentation of financial statements is increasing rapidly.

Barrett (2005) explained that the audit target is to give a true opinion about financial statements; the auditors must also ensure that the most important items in financial statements are true. Therefore, the external auditors’ task becomes more important, as they need to provide fair assurance after checking the financial transactions. The auditors’ role has become more difficult over many years due to an increase in the content of financial statements and the recurring global financial crisis.

According to Sikka (2009, p. 872), ‘the deepening financial crisis poses questions about the role and value of external audits’. These questions have appeared due to the bankruptcy of big companies, such as the Enron Corporation, which received a positive audit report when its financial position was vacillating. As mentioned by Sikka (2009), the questions focus on an auditor’s practices due to the current financial crises, particularly their assurance that the financial statements present important items and are free from material misstatements. Thus, the concept of materiality is one of the most important guides for auditors when they make decisions about whether items can affect financial statement results and it can be used to reduce subjective judgements (Iyer and Whitecotton 2007).

In addition, materiality is an important approach for auditors in planning audit processes and is used as an approach to determine items requiring special attention, as well as the size of samples to be checked for financial information (Messier et al. 2005). Consequently, auditors need to improve their audit plans using and involving one of the most important concepts of auditing, which is the concept of materiality, to focus on the items that affect financial
transactions (Lo 2010). In this respect, the audit process needs to develop from a complete audit of all financial transactions to a method of optional checking.

Although, the auditors have adopted the Generally Accepted Accounting Principles (GAAP) to discover whether financial statements present important items or not, those principles still do not provide an obvious definition for a materiality audit and its factors. Acito et al. (2009, p. 664) argued that ‘because GAAP does not provide bright line rule for determining materiality, management and auditors must jointly negotiate a subjectively determined (but unobservable) materiality assessments’. The focal point of Acito et al.’s (2009) study is to explain that archival research of materiality auditing concentrates on quantitative factors when determining which financial transactions affect financial statement results, despite the fact that there are significant qualitative factors that could have an effect on materiality assessment. Some of these include type of industry and prior actions.

Sian and Roberts (2009) stated that the lack of standardised reporting for different kinds of businesses in the United Kingdom (UK) led to confusion among the auditors about material misstatements that affect financial statement results. The results tended to indicate that medium and small companies need simple guidelines and standards relating to the accounting and auditing professions in order to present material information. Additionally, the results of Sian and Roberts’ (2009) study stated that financial reporting standards were only offered to large companies, so auditors were incapable of making the right decisions about the accuracy of medium and small companies’ financial statements.

The above discussion highlights the issue concerning materiality auditing in Western countries. However, developing countries, such as Libya, also require research into the concepts and factors of materiality auditing (Saudi Organization for Certified Public Accountants [SOCPA] 2000). The focus of this study is on the absence of Libyan accounting and auditing research, specifically regarding materiality auditing decisions (Libyan Accounting and Auditing Association 2005; Alfirjani 2006; Alhsada 2007). Thus, the research problem has been addressed by the following question: **What are the main issues of materiality auditing in Libya from the viewpoint of Libyan external auditors?** In order to achieve a comprehensive study, the main issues of materiality auditing in Libya will be investigated by sub-questions and hypotheses, which are presented in the research methodology chapter.
Chapter 1: Introduction and Overview of the Research

1.5 Research Methodology Overview

The research methodology explains the method that has been adopted to address the research approach, data sampling, data collection, data analysis and limitation of the research design.

1.5.1 Research Approach

There are various types of research methods. According to Kellaghan (2010), there are quantitative methods, qualitative methods and mixed methods. Quantitative methods are regularly used by research that aims to explore or confirm the results of tests or observations. Although quantitative methods are efficient in measuring quantitative factors, such as numbers or percentages, they cannot match and address the complexities of behavioural sciences. Therefore, qualitative methods of research were developed to address social issues that use no quantitative variables or measures. Kellaghan (2010, p. 152) indicated that ‘qualitative studies address this issue when they adopt a naturalistic posture, which recognises the phenomenological character of the evaluation context’. He also pointed out that many studies that are reliant on both quantitative and qualitative variables have used mixed methods. Tashakkori and Newman (2010) stated that the purpose and utility of mixed-method research is to understand completely the phenomenon underling the investigation.

This study will adopt the quantitative approach because it will explore both quantitative and qualitative factors, as the research problem will be addressed by several types of questions (quantitative and qualitative equations). Kumar (2011) mentioned that the quantitative approach is an efficient method for investigation of qualitative and quantitative factors. He also stated that the quantitative approach is able to explain the extent and nature of an issue, opinions and attitude.

The research approach of this study will be divided into two main parts:

1) The theoretical part, which will review the concept of materiality and factors that affect auditors’ assessment of materiality decisions in accounting literature.

2) The field part, which will provide an exploratory study regarding materiality auditing in Libya.
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In the second part, the use of a field questionnaire is to achieve the following objectives:

- exploring the Libyan external auditors’ attitude towards materiality
- determining the source of materiality guidelines in Libya
- determining the level of understanding of Libyan auditors on quantitative and qualitative factors in materiality decision and designating unanimity among Libyan auditors around such factors in the audit that suit the Libyan environment
- exploring the relationship between the quantitative and qualitative materiality factors from the perspective of Libyan external auditors.

1.5.2 Data Sampling

A sample refers to elements of the population that estimate population parameters of interest, such as size and weight (Brown 2010). The sample should serve the purpose of the research by providing adequate information when the researcher is unable to survey all elements of the population. In addition, using an applicable sample saves the researcher time and money.

As discussed above, the difference between quantitative and qualitative research is based on the research data. Byrne (2001) explained both quantitative and qualitative sampling and their concepts. He indicated that a quantitative sample uses numerical data to determine relationships between variables, while a qualitative sample uses no numerical data to increase the understanding of a phenomenon. Byrne (2001, p. 494) also stated that ‘qualitative sampling can be confusing, especially if one’s knowledge regarding sampling methods originates from a framework of statistical inference’. For this reason, qualitative data should be gathered by the survey method of data collection, as well as through personal interviews. However, Trochim (2001) indicated that quantitative data could also rely on qualitative judgements and that qualitative data could be measured numerically. He also indicated that all qualitative information could be expressed using quantitative information.

The research sample for this study was determined using a list of auditors from the Libyan tax authority. This list includes approximately 2,212 registered auditors (Libyan Accounting and Auditing Association 2011). Therefore, according to statistical formulas, the sample size for this study was 400 Libyan external auditors. More details regarding the research approach, population and sample size will be presented in the research methodology chapter.
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1.5.3 Data Collection

To answer and test research questions and hypotheses, data should be gathered from various sources. There are numerous types of data collection, including questionnaires, observations, personal interviews and telephone interviews (Trochim 2001).

1.5.3.1 The Questionnaire

The questionnaire is an important tool for collecting data from the sample (Foddy 1994 and Kelly et al. 2008), and it can include different types of questions in order to provide adequate primary information. The aim of this research is to achieve a comprehensive study about the materiality auditing issues in Libya (including the importance, difficulty, responsibility and factors). Therefore, the questionnaire is an applicable tool for collecting research data. In this study, it is used to explore materiality-auditing issues such as auditors’ attitudes towards materiality, materiality guidelines and factors.

1.5.3.2 The Parts of the Questionnaire

The questionnaire will be categorised into six parts:

- Part one aims to explore the Libyan external auditors’ attitudes towards the materiality concept.
- Part two presents their views about sources of materiality-auditing guidelines in Libya.
- Part three aims to discover the existing quantitative forms and factors that affect Libyan auditors’ assessment of materiality decisions.
- Part four aims to discover existing qualitative factors that affect Libyan auditors’ assessment of materiality decisions.
- Part five aims to explore the relationship between the quantitative and qualitative materiality factors, including the necessity of separation.
- Part six aims to discover background information on the respondents, such as qualifications and experience.
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1.5.3.3 Translation of the Questionnaire

As candidateship was undertaken in Australia, the questionnaire was originally written in the English language. However, because this study was based on Libya, as a case study, and the national language in Libya is Arabic, the questionnaire was translated into the Arabic language. In addition, the Arabic version was checked by an official translation agency for accuracy and then sent to the respondents. Copies of the Arabic version of the questionnaire and the approved translation letter from the Libyan translation office (Tripoli Office Legal Translation) have been attached in Appendices C and D.

1.5.4 Methods of Data Analysis

Descriptive analysis and inferential statistical techniques were used to address the research questions and hypotheses. Descriptive analysis was chosen because the research type was an exploratory study that included both quantitative and qualitative data. Thus, this type of analysis was applicable for interpreting such data collection in this study.

According to Kimberly (2010), descriptive analysis can provide adequate and reasonable results for academic research. For example, descriptive analysis can determine definitions and conceptual terms. Kimberly (2010) also indicated that, currently, social and behavioural research adopts descriptive analysis methods. However, descriptive analysis is merely the starting point of data analysis, as it only provides general summaries of the phenomenon being studied.

The questionnaire for this study was sent to the Libyan statistical office, as well as Australian statistical experts, to approve the statistical techniques that have been suggested. The comments from these experts approved the data analysis methods in this research. In addition, the one sample t-test, Binomial test, Friedman test, Kendall’s W-test, Factor analysis and one-way ANOVA were approved for analysis of the research data.
1.6 Justification of the Research

This research is a ground-breaking study relating to materiality auditing in Libya and has been suggested by previous research recommendations (Abuzied 2006; Alfirjani 2006; Alhsada 2007; Ritchiea and Khorwatt 2007). Section 1.6.1 aims to discuss and justify the need for this study in Libya.

1.6.1 The Need for Materiality Auditing Research in Libya

This research is the first systematic investigation of both the materiality concept and the factors affecting materiality assessment of Libyan external auditors. Therefore, it undertook to explore the conditions under which Libyan auditors use the materiality concept to determine important items of financial statements during the audit process. In addition, in Libya as a developing country, there is still a need for auditing research in general and materiality auditing research, particularly regarding the national business environment (Juma’h 2009).

The need for a materiality-auditing study in Libya is determined by the following factors:

- The research will assist the auditing profession and future research by providing a background on Libya, which will reduce the current gap in materiality auditing research in Libya, as well as in developing nations.
- It will explore a number of quantitative and qualitative factors that affect auditor’s assessment of materiality decision in Libya.
- It will investigate the relationship between the quantitative and qualitative materiality factors.
- It will also investigate official authorities or organisations that have responsibility for materiality auditing in Libya.
- It will explore the benefits of the international auditing standards for the materiality guidelines used in Libya.

More specifically, the justification for this research is to achieve an understanding about the four main issues of materiality auditing. These include the level of awareness of the materiality concept, source of the guidelines and benchmarks of materiality auditing
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decisions, quantitative and qualitative materiality factors that have been used by the Libyan external auditors in their materiality auditing decisions and relationship between the quantitative and qualitative factors regarding their effects on materiality auditing decisions.

1.6.1.1 Level of Awareness of the Materiality Auditing Concept

As this is the first study that investigates the Libyan external auditors’ attitudes towards the materiality auditing issue, which was recommended by previous research (Abuzied 2006; Alfirjani 2006; Twati 2008), the first aim of this research is to explore the level of awareness of the materiality auditing concept from the perspective of Libyan external auditors. This study explores the Libyan external auditors’ views regarding the difficulty, importance and responsibility of the materiality auditing concept.

1.6.1.2 Sources of the Guidelines and Benchmarks of Materiality Auditing Decisions

This study investigates the sources of guidelines and benchmarks of materiality auditing decisions that have been used by the Libyan external auditors. It also explores the perspective of the Libyan external auditors regarding the extent of the benefits in those sources to the Libyan environment.

1.6.1.3 Exploring the Quantitative and Qualitative Factors that Have Been Used by the Libyan External Auditors in their Materiality Auditing Decisions

According to recent auditing studies (Sarkuh 2009; Corte et al. 2010; Lo 2010; Dechow et al. 2011; Manitaa et al. 2011; Budescu et al. 2012), the issue of the quantitative and qualitative factors that affect materiality auditing decisions is still one of the important fields in auditing research in developing countries, as well as in developed nations. Therefore, one of the greatest needs for this research comes from exploring the quantitative and qualitative factors that affect materiality auditing decisions in Libya.
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1.6.1.4 The Relationship between the Quantitative and Qualitative Factors Regarding their Effects on the Materiality Auditing Decision

In recent years, qualitative factors have been focused by auditing research (Thibodeau and Freier 2009; Corte et al. 2010). Thus, this research aims to explore and answer the following questions:

- To what extent do quantitative and qualitative factors affect materiality auditing decisions?
- Is it necessary to separate quantitative and qualitative factors for materiality measurement?

This investigation can assist the auditing research and reduce the existing gap in the literature related to the relationship between the quantitative and qualitative materiality factors.

1.7 Research Structure

This thesis comprises seven chapters, including the introduction, literature review, theoretical framework, Libya and the case study in context, research methodology, data analysis and research results and discussion and conclusion. These are discussed in detail below.

1.7.1 Chapter 1: Introduction

Materiality auditing is one of the most important issues in both accounting and the auditing profession. However, this issue still needs more research to define its concepts and factors. This chapter provides background about this issue by:

- Introducing materiality auditing and the relationship between materiality decisions and some auditing issues, such as auditing changes, professional judgement and materiality factors
- Determining the research question
- Giving a brief overview of the research methodology (the research methodology will be discussed in the Chapter 5)
- Justifying the research and providing the reasons behind the selection of this topic.
Chapter 1: Introduction and Overview of the Research

1.7.2 Chapter 2: Literature Review

This chapter contextualises the research through a discussion of the literature that covers previous studies relating to the need for materiality auditing, materiality definitions and the factors affecting materiality decisions. The chapter is divided into four main sections:

- The first section will investigate the association between materiality auditing and the changes in the auditing profession, the history of materiality auditing, the existing materiality definitions and the factors affecting materiality decision.
- The second section will investigate materiality auditing in developing countries.
- The third section will briefly discuss two aspects in the Libyan case that relate to materiality auditing, including the history of auditing development in Libya and the current situation of the auditing profession in Libya.
- The fourth section will discuss the main theories relating to materiality auditing and explore the framework of materiality auditing in Libya.

1.7.3 Chapter 3: Theoretical Framework—Materiality Auditing and the Audit Expectation Gap

This chapter discusses the theoretical framework of the materiality concept and the relationship between the materiality audit, expectation gap and auditing theories. Two main auditing theories (the agency and policeman theories) have been investigated with regards to materiality auditing and the expectation gap. This chapter also investigates materiality auditing and the expectation gap in Libya, as a case study.

1.7.4 Chapter 4: Libya and the Case Study in Context

This chapter studies the environmental characteristics within Libya to determine the circumstances that affect Libyan auditors’ assessment of materiality decisions and the materiality factors that are used. The study discusses the Libyan environment, including the background and past of the country, and presents the political and economic systems and the development of the Libyan auditing profession. This chapter discusses past and current financial laws and regulations, auditing education and the auditing profession in Libya. The chapter is divided into three main sections:
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- The first section will discuss the political, economic and social environment in Libya and how this affects the auditing profession and its regulations.
- The second section will discuss the development of auditing education in Libya.
- The third section will investigate the professional bodies and governmental organisations that have responsibility for audit standards.

1.7.5 Chapter 5: Research Methodology

In order to present the research method adopted in this thesis, this chapter will highlight the methodological and procedural matters surrounding the research. The chapter provides a review of the available literature concerning research issues, which is followed by discussion of the research problem, questions and hypotheses. It also investigates the literature relating to research structure, type and design in order to justify the method adopted in this research. The questionnaire will be used to investigate empirically the materiality concept and its factors in Libya (collecting the primary research data). Following the discussion of data collection, two pilot studies are developed in this chapter. The justification of the statistical techniques that have been used to analyse research data is also discussed. Finally, important research issues including reliability and validity of research, as well as ethics in business research, are also discussed in this chapter.

1.7.6 Chapter 6: Data Analysis and Research Results

This chapter consists of two main parts: the justification of the statistical methods that have been used to analyse the research data and the results of data analysis and testing hypotheses.

1.7.7 Chapter 7: Discussion and Conclusion

This chapter discusses and explains the research results. In addition, it draws an overall conclusion, limitations and suggestions for future research.
1.8 Conclusion

Chapter 1 began with an overview of materiality auditing as the main issue of this study. It introduced the main issues of materiality auditing (e.g., concepts, personal judgement and factors), which have been discussed in the literature on developed countries, as well as developing nations. This was followed by discussion of the research problem, as well as the research methods adopted in this thesis, including the research approach, data sampling, data collection and analysis. This chapter also provided a comprehensive justification for this research by explaining the need for materiality auditing research in Libya. The chapter concluded with a brief summary of the remaining chapters.
Chapter 2: Literature Review

2.1 Introduction

The purpose of this chapter is to review the historical studies of materiality auditing, which is one of the most important concepts in auditing in both developed and developing countries. The needs of financial statement users for material information are discussed based on the concept of audit materiality; its role and factors in both developed and developing countries.

According to Thirlwall (2007), ‘a developed country’ is a term used to describe countries that have a high level of development according to characteristics such as economic and educational systems, while the term ‘a developing country’ is used to refer to a country that has a low level of development. Thirlwall (2007, p.766) also stated that “three general criteria have defined the developing countries; i) a per capita income less than $750 per annum; ii) low levels of human capital measured by illiteracy and iii) economic vulnerability. These differences of criteria between developed and developing countries cause a gap between those countries, particularly in economic, accounting and auditing systems (Chan et al. 2003).

Although there are many differences between developed and developing countries, developing countries have adopted international concepts and standards, such as accounting and auditing standards, to organise and encourage their economy (Moussa 2010). Economists and investors need financial information to making economic decisions. Currently, due to world economic development and the complex structure of industrial activities, financial statement users require an increasing amount of financial and non-financial information to make economic decisions. Alleyne and Howard (2005) pointed out that after global financial scandals, such as Enron and WorldCom, financial statement users are seeking the assurance of an audit report and they believe this could be provided by the auditing profession. This means that financial statement users are now looking for material information that has an effect on financial statements and their economic decisions. This situation puts pressure on the auditing profession for the development and change of its concepts, standards and methodology.
Chapter 2: Literature Review

Fuga and Concitis (2008) investigated the effect of changes to the sales and tax laws on the audit process. They showed that the world economic system has become more complex than before; new regulations of industries and unified corporations tend to increase the accounting and auditing activities for large corporations. For example, auditors should review the company’s web regulations and new industrial regulations (Paul et al. 2009). They stated that the need for harmonisation in the auditing profession has sharply increased due to economic globalisation and ongoing financial crises. They also provided evidence that some countries in the European Union (EU) believe that harmonisation in auditing standards could assist a unified economic system for those countries that require international qualifications in auditing.

Following the above interpretation, auditing is considered the cornerstone of economic decision making. Auditing provides assurance for financial statements that are prepared by company accountants showing the company’s financial position. In addition, financial statements should present important information for users so that they can make economic decisions (Sawani 2009). Moreover, Salehi’s (2010) study mentioned that, since last century, the auditing role has been intercepted by accounting and auditing researchers to develop auditing concepts and methods. In his study, Salehi explained that the auditing role has changed from providing a complementary audit to providing a sample audit. This change has led to auditors becoming more concerned about material misstatements, which have a significant effect on financial statements, and ensuring that statements show the fair and accurate financial position of the company.

Materiality auditing refers to important elements in the financial statements that affect their results and user decisions. The materiality concept also means that financial statements are free from material errors and fraud (Iyer and Whitecotton 2007). Prior studies in both auditing and accounting areas have incorporated the materiality concept and its factors. However, many recent studies also declare that the materiality concept is still required to develop further specific research about concepts, factors and personal judgement for reasons such as economic development, bankruptcy and the expectation gap between auditors and financial statement users (Juma’h 2009; Marianne 2006).

In the last century, in the United States (US) and the UK, early studies (Benson 1977; Watts and Zimmerman 1983) attempted to explain auditing concepts and standards that organised
the relationship between the auditors and financial statement users. One of the most important auditing concepts is materiality. Queenan (1946, p. 255) stated that ‘during the first quarter of the twentieth century the public accountant found it necessary to differentiate between material and immaterial matters’. Queenan (1946) indicated that, due to a developed and increased volume of information in the financial statements, materiality concepts became one of the most important concepts in both accounting and auditing. Initially, the materiality concept was used due to the increase of type and value of entities and the increase of financial statement users and transactions. External auditors were unable to investigate all financial transactions due to time and cost limitation, so they became solely concerned with material information that affected the results of financial statements. According to Carmichael (1979), the auditor’s role has changed from the absolute opinion that financial statements are free from misstatements to a fair opinion that the financial statements are free from material errors and fraud. This change of auditing methodology led to use of the materiality concept in the auditing department.

Lowe (1967) mentioned that professional accounting bodies in the US and the UK attempted to assist accountants in developed countries by providing accounting rules and regulations that were suitable to their circumstances and attempting to draw developing countries into adoption of the Western standards. However, accounting and auditing systems are influenced by the different economic and political systems of each country. According to Hussain et al. (2002), developing countries have faced problems when they adopted Western accounting standards due to the differences of environment between themselves and the developed countries. Hussain et al. (2002) investigated the accounting and auditing policies in five large Gulf countries that adopted international accounting standards (IASs). These included Saudi Arabia, United Arab Emirates, Qatar, Bahrain and Oman. They found that, although these countries attempted to implement IASs, some of the international accounting policies could not be implemented due to social and cultural differences. Moreover, developed countries still need to harmonise both their accounting and auditing standards because of the globalisation of capital markets and the increase of financial scandals.

In their studies (Chow et al. 1999; Garcia-Benau and Zorio 2004; Sawani 2009) confirmed that there are many different circumstances between developed countries and developing countries, including their economic and social systems. Therefore, developed countries have attempted to set accounting and auditing standards that can be harmonised with their unique
conditions (economic and social systems). However, despite these variations between developed and developing countries, some developing countries adopted accounting and auditing standards of developed countries without modification (Sawani 2009). The materiality concept and the factors that affect auditors’ assessment on material transactions have been investigated for decades by academics and professional accounting bodies in developed countries. However, there is still a lack of materiality auditing research in developing countries.

2.2 Prior Research Investigating the Materiality Audit in Developed Countries

Over the past few decades, there have been a vast number of studies on materiality auditing in industrial countries. These studies have investigated auditing issues that are due to the complex and important relationship between the auditing role, users of the audit report and the economic system. The need for this relationship between auditing professions and users of auditing reports has risen significantly due to the complex mass of world economic systems and the increasing value of corporations (Charles 1965; Lee 1985; Teck-Heang and Ali 2008). Therefore, according to Iyer and Whitecotton (2007), both the accounting and auditing professions have attempted to provide material information that affects financial statements using the materiality concept.

In this situation, auditors find it difficult to express absolute opinions because they cannot inspect thousands of financial transactions and ensure that financial statements are free from misstatements. Since the twentieth century, auditors have researched how they can express reports on whether the financial statements are free from material errors and fraud. Consequently, Dohr (1950), Boatsman and Robertson (1974) and Holstrum and Messier (1982) stated that auditing research in developed countries has been concerned with the materiality concept and the factors that affect material items.

Holstrum and Messier (1982, p. 47) indicated that ‘the topic of materiality was considered to be of such importance that it was one of the original seven issues on the Financial Accounting Standards Board’s (FASB) agenda when it was formed in 1973’. The main reason for this is that financial statements need to provide significant information to financial statement users.
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Therefore, the auditors should focus on whether financial statements should include material information that affects user decisions.

2.2.1 Development of the World Economy and the Conversion of the Audit’s Role in Developed Countries

There is no doubt that there is an association between economic systems and the auditing profession. This is because the main goal of auditing is to provide important and true financial information to economists and investors. This means that the auditors face a high level of pressure from economists, investors and taxpayers (Fuga and Concitis 2008).

For several decades, controversy has existed concerning the relationship between the auditing role and economic development. In his study, ‘Economic Development and Accountancy’, Enthoven (1965) explained how the financial and economic policies affected accountancy and auditing. Legal requirements, government regulations and economic policies have an effect on accounting and auditing practices because the economic system aims to recognise and increase national and financial resources. Simultaneously, the objectives of the accounting and auditing standards are to record, measure and inspect those financial resources. Enthoven (1965) found that, to achieve economic growth, it is imperative to harmonise financial policies, such as accounting and auditing policies, with legal requirements and economic policies.

Economic policies and government regulations explain business conditions and the legal environment. For these reasons, accounting and auditing concepts could be affected by international or national economic conditions. Enthoven (1965) also mentioned that the accounting and auditing professions play an important role in economic systems; while accounting records the financial events and prepares the financial statements, the auditors examine those financial statements and express their opinions on whether the financial statements are free from misstatements.

Rappaport (1977) explained the association between the economic system and accounting standards. Financial accounting standards can affect the economic system in different ways. These standards directly or indirectly affect the behaviour of auditing report users, such as shareholders, labourers, governments and potential investors. Moreover, Rappaport (1977)
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presented evidence that showed that accounting and auditing concepts were derived from economic areas, such as historical cost, replacement and current value. Lee (1985) stated that the management department of economic resources needs financial information for planning and deciding on and controlling these resources. Lee (1985) also explained that, due to the complexity of the economic systems, the quality of financial information is often unreliable due to its volume and users. Thus, the materiality concept has been required by financial statement users.

From the late 1800s to the early 1900s, the world economic system was uncomplicated; companies were not as large as they are now and financial transactions were limited. Therefore, audit processes aimed to ensure that all financial transactions were free from errors and fraud (Teck-Heang and Ali 2008). Similarly, Manson (1991) stated that, in the early 1900s, auditors focused on finding errors to ensure that financial statements were completely free from misstatements. Thus, during the period 1840–1920, the limitation of both financial transactions and operational economy inside a company or between each other provided the opportunity for auditors to inspect all financial transactions. Conversely, after the mid-twentieth century, the audit role faced fundamental changes due to world economic growth.

Leung et al. (2009) stated that, due to the development of world economy and increased public expectations of accountability, the audit role has changed vastly over the last decade. This is because auditors will be unable to examine all financial transactions during the audit process, so they will only focus on material items that affect financial statement results. Moreover, due to world economic development, the number and types of business corporations have grown dramatically. Consequently, each group of financial statement users need different financial information for planning and making economic decisions. Thus, auditors should have adequate education and experience to enable them to provide reliable information to their clients (Sian and Roberts 2009). Although an auditor’s role is to ensure that financial statements present the company’s financial position and provide true information for its users, the audit could not offer all information for all users. Epstein et al. (2009) indicated that the main goal of audit reports is to provide sustainable information to all financial statement users. This means the auditors should shift their methodology from a focus on all financial transactions to material transactions (the materiality concept).
Epstein et al. (2009) also declared that the increase in number and type of financial statement users has led to a change in the role of the audit. Currently, there are various types of financial statement users. Epstein et al. (2009) divided those users into two groups: internal and external users. Internal users, such as management and the directors of the company, could acquire more details about their financial position by internal reports. External users were divided into a further two groups: direct and indirect financial statement users. Direct users include those who have a direct economic interest, such as owners, lenders, suppliers and potential investors. Indirect financial statement users include users who assist decision-makers by advising or establishing concepts and standards. For example, economists, taxing authorities, stock markets, labour and trade associations.

Since the mid-twentieth century, the role of the auditing profession has shifted because of both world economic development and the increase in financial statement users. Moyer (1951) stated that, during the early nineteenth century, the auditing profession was growing slowly in the US because it was a new country and had no economic complexity. At the same time, the early industrial revolution in the UK and the development of corporations led to a need to set new British accounting and auditing standards. The British accounting and auditing standards were then adopted by US auditors because both the US and the UK have similar political and economic systems.

The conversions and developments of the auditing role have received considerable attention from auditing researchers. Several empirical auditing studies (Brown 1962; Causey 1976; Gray et al. 1996) found that new concepts have appeared in both the accounting and auditing professions. These include materiality, corporate social responsibility, sustainability, transparency and social and environmental accounting and reporting. Gray et al. (1996) mentioned that these changes and new auditing concepts have appeared for many reasons, including globalisation and the complexity in the relationship between national and international economic systems. For these reasons, the evaluative auditing studies advise auditors to use international auditing standards.

At the end of the twentieth century, numerous auditing studies mentioned that an external audit has a tendency to change its methodology due to world economic conversions. By 1993, accounting and auditing bodies were pressurised by European organisations to harmonise accounting and auditing standards. King (1999) analysed audit reports from the 1995 annual
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reports of the largest industrial companies in more than 10 European countries. King’s (1999) study is a response to determining the degree of harmonisation in the form and content of the auditor’s report in the EU. King (1999) found that, although three of the five elements in the auditor’s report are harmonious, harmonisation does not exist for any elements related to content, including the materiality concept. Iyer and Whitecotton (2007, p. 77) supported King (1999) and stated that ‘without harmonization of the concept of materiality, harmonization of accounting standards is limited’. Moreover, as many European countries have different economic and political systems, the auditor’s report is affected by this discrepancy.

Daniel et al. (2001) also reported the effect of economic conversions on the auditing profession in Slovakia. They found that, due to a shift in the Slovak economic system from a public to a market economy in 1989, the accounting and auditing professions were strongly influenced by European accounting systems. Consequently, Slovakia changed its accounting and auditing standards by adopting the EU Standards because, according to Daniel et al. (2001), the country wanted to become part of the EU.

The historical research on audit conversions aims to understand the development of the audit process in relation to economic development. Flesher et al. (2005) presented the changes of the auditing process in the US. They stated that studying audit history leads to an understanding of the changes in the audit process because it describes how and why auditing has changed over many decades. They concluded that auditing changes have seemed to respond to the increase in economic activities, complexity and financial statement users.

Similarly, Jayalakshmy et al. (2005) reviewed auditing literature to interpret the changes in the auditor’s role. The study aimed to explain that auditing conversions have been adopted to face economic globalisation and audit failures in many cases of financial crises. The auditor’s role shifted from auditing all financial transactions to sample testing due to the increasing number of financial transactions and complexity of corporate structures. Additionally, the determination of whether the financial statements present the company’s financial position has increased auditing responsibility. Jayalakshmy et al. (2005) concluded that professional auditing bodies have established some new concepts, such as a true and fair view and the materiality concept, to fulfil auditing responsibility. These concepts have played an important role in changing and developing the audit role from a classical to a modern one.
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Khalifa et al. (2007) used an extensive series of interviews with auditors, academic professors and regulators to determine audit changes. They indicated that over the last decade, audit methodologies have shifted in order to maximise audit quality. They stated that auditing changes have occurred due to significant economic events and the appearance of new types of risk-associated businesses. Enron, WorldCom and other financial scandals encourage the auditing conversions to pay attention to audit quality.

In a historical auditing study, Teck-Heang and Ali (2008) divided auditing changes into five chronological periods: pre-1840, 1840–1920, 1920–1960, 1960–1990 and 1990 to present. In the first period, auditors were inspecting all financial transactions because the company sizes and volume of financial statements were not too large. The second period began when the Joint Companies Act was established in 1844 in the UK due to the growing economy. Financial statements were compulsory in 1900 under the Companies Act 1862. The third period saw many audit changes in the US due to the growth of the US economy, the agency theory and the financial crises. During this time, new auditing concepts, such as the true and fair view and the sampling technique, detected and replaced erroneous concepts. One of the most important concepts that was introduced was the materiality concept. The fourth period saw an increase in number, size and complexity of companies around the world, which meant that auditors further considered the credibility of information. Finally, the concept of the ‘quality of audits’ appeared in the fifth period, particularly after the global financial scandals of larger companies, such as Sunbeam, Waste Management, Enron and WorldCom.

One of the most important and controversial features of the recent shift from professional to government regulations in the US is studied by DeFond (2009). He mentioned that, due to the increase in the importance of quality auditing and the apparition of the Sarbanes–Oxley Act of 2002, the auditing profession attempted to shift its regulations and standards from self-regulation to government regulations in the US. Therefore, the Public Company Accounting Oversight Board (PCAOB) was created to replace the American Institute of Certified Public Accountants by the Sarbanes–Oxley Act of 2002. The PCAOB objective is to protect financial statement users by providing valued information, true and fair views and independent audit reports. DeFond (2009) found that, despite that the PCAOB inspections could not provide sufficient financial information, empirical evidence suggested that auditing and financial reporting quality were changed and developed by PCAOB inspections.
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Jacob and Madu (2009) used an archival methodology to interpret the importance of international financial reporting standards through the association between global markets and the auditing methodology. Their findings indicated that, due to the complexity of the world economic system, international financial reporting standards should be applied by auditors to harmonise auditing standards around the world and develop the auditing profession. This may lead to a reduction in the expectation gap in material information between auditors and financial statement users.

Conversely, Sawani (2009) explained the effect of economic and political policies on auditing changes. The author claimed that, despite several advantages to implementing international financial reporting standards, such as decreasing the cost of financial reporting, other factors, such as economic and political circumstances, could affect auditing standards. For example, in the US, accounting rules are not laws but standards or recommendations; whereas, accounting rules are part of the legal system in other countries, such as Taiwan. In addition, Sawani (2009) argued that the capital market structure has affected auditing goals. In Germany, the main financial resources of capital markets are banks, so the accounting and auditing professions aim to protect creditors by full disclosure. However, in the US, the main purpose of the accounting and auditing professions is to protect all investors, as the capital market is equity-based.

In terms of the audit methodology, auditors currently consider the changes in financial-audit methodology regarding the information-systems audit. Vilsânoiu and Șerban (2010) evaluated the association between information-systems auditing and financial-audit methodology to explain the effect of changes to financial-audit methodology on information-systems auditing. They stated that, from the mid-1990s, the audit methodology has shifted from a focus on financial statement risk to business-risk auditing. Vilsânoiu and Șerban (2010) defined business risk as the risk resulting from factors such as type of industry, previous actions and circumstances. The main reason for the shift in audit methodology is that the type and size of industries have increased dramatically so auditors need to consider business risk. This is because the term ‘business risk’ also includes the audit-risk concept.

In their study, The World Has Changed—Have Analytical Procedure Practices?”, Trompeter and Wright (2010) attempted to focus on how audit practices have changed in light of recent changes in the audit environment, by examining the practices of the Big Four Certified Public
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Accountant (CPA) firms in conducting analytical procedures and interviewing 36 auditors from those companies. They reviewed prior research from both academics and practising professionals that related to financial-information audit systems and audit methodology. They suggested that the analytical procedures of auditing were changed by two main factors: financial reporting scandals and the Sarbanes–Oxley Act of 2002. Their results revealed that, after the recent global financial crisis, both auditors and financial statement users have become more considerate about non-financial information and obtaining extra material information than before. In addition, new measures affecting the auditing profession have been discussed by Sarbanes – Oxley Act, such as requiring assurance on internal controls.

Simpkins (2010, p. 37) stated that, in New Zealand, ‘the Minister of Commerce announced that a new external reporting board will replace the Accounting Standards Review Board (ASRB) from July 2011’. The Minister of Commerce has cited widespread inconsistencies and inefficiency of the ASRB within New Zealand’s financial reporting framework. To solve these issues, he proposes to gather all standards-related functions and responsibilities into a new body. This means that financial statement users have been given assurance that financial transactions will now contain material, financial and non-financial information. Therefore, academics in New Zealand expect that the external reporting board will be more responsible than the ASRB in ensuring professional standards and assurance for auditing.

In terms of the recent global financial crisis, Cooper and Grose (2010) presented the current financial crisis from an auditor’s perspective, including its effect on the audit role and auditing challenges. They argued that this phenomenon has reinforced the question of whether auditors have sufficient opportunity to work within complex economic systems. The current financial crisis provides evidence that the economists and investors have yet to seek material information, and the credibility gap between auditors and financial statement users still appears because of a lack of obvious material information.

Recently, the audit profession has had to play a significant role in economic development by providing vital services, such as examining a complex mass of financial statements, offering important information to investors to make the right decisions and expecting new financial positions. In addition, financial and non-financial information can also be presented by understanding the materiality concept.
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2.2.2 The Materiality Audit Is Not a New Concept in Developed Countries

The issue of the materiality audit dates back to the early nineteenth century with the growth of world economic systems and an increase in the number and size of companies (Juma’h 2009). Juma’h (2009) stated that, during the nineteenth century, the issue of material information for financial statement users had been investigated by many courts.

A review of the historical development of audit materiality provides an understanding of the development of the materiality concept that is necessary because of economic and political factors, such as accounting scandals and globalisation. As mentioned earlier, use of the materiality concept has increased dramatically in the auditing process, which is due to an increase in financial transactions and changes in users’ financial statement needs. Epstein et al. (2009) and Juma’h (2009) also indicated that, in the US and after the Security Act of the 1930s, the materiality concept became more important and was implicated by the GAAP.

The earliest pronouncement on the issue of audit materiality was made in 1935. Borth and Winakor’s (1935) study was one of the earliest studies about the necessity of material information to make economic decisions during global economic development. They indicated that the development of the world economy into a complex mass of diverse corporations led to a change in the auditing role. Brown (1962) stated that, in the past, the auditors had a significant opportunity to check all financial transactions and express an absolute opinion on whether the financial statements were free from misstatements. However, Borth and Winakor (1935) pointed out that, in the early nineteenth century, the audit role had shifted from inspecting all transactions to focusing on material transactions. The main reasons were increase in financial transactions and types of financial statement users, which prevented auditors from providing different information to a variety of users. They concluded that auditors should search for items that influence financial statements.

Lebeis’ (1939) study was the earliest attempt to interpret the materiality issue under the Securities Act of 1933. Lebeis mentioned that the Securities Act of 1933 covered all the material information that was needed by financial statement users. The Securities Act outlined that the preparations of financial statements need to disclose material information and also meet the compulsory standards by law.
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Due to the separation of owners and managers of companies, the need for third party auditors (external auditors) increased and, hence, the agency theory became more important. Stettler (1954) explained the development of an association between external auditors and audit evidence. The author stated that auditors previously provided full information and evidence to managers with complete assurance that the financial statements presented the true financial position. However, Stettler (1954) stated that, after changes and development in global economic systems (increase of corporation size), auditors could not check all items in financial statements to provide a guarantee on whether the statements showed material items. Stettler (1954) was also one of the early researchers who discussed issues of audit materiality such as absolute value and materiality factors.

Issues relating to the materiality concept have been researched by both accounting and auditing professionals during the twentieth century. This aspect was noted by Carmichael (1979) where he discussed the cumulative aspects of the materiality concept and how to implement them from an accounting and auditing view. He stated that the term ‘materiality concept’ refers to an item or items in the financial statements that, if omitted, would affect decisions based on those statements. Carmichael (1979) indicated that auditors use materiality in two steps: evaluating the presentation of financial statements and planning the auditing process.

One of the earliest empirical investigations into the materiality concept was done by Bernstein (1967). He stated that the target of financial statements is to provide useful information to users so that they can make economic decisions. In addition, Bernstein (1970) confirmed that a financial statement should present fundamental information and should not need complex analysis in order to understand it. Therefore, information should be understandable and useful to a general readership. Although his study explained some of the issues of material information of financial statements and the needs of their users, it did not explain the relationship between materiality assessment and audit risk, which cannot be understood by a general readership.

Another empirical materiality decision study was published by Newton in (1977), which attempted to investigate the association between materiality decisions and the risk factors by CPAs during materiality assessment. One of the study’s hypotheses was that accountants search for an item relating directly to the materiality degree in order to accept the risk level.
Newton’s (1977) findings indicated that, although the materiality level and its effects on auditors’ acceptable risk level had been investigated, other aspects detrimental to auditing materiality, such as qualitative factors, still needed to be researched.

Prior accounting and auditing research has widely discussed the materiality concept and its problems (Dohr 1950; Bernstein 1967; Lookabill and Dominiak 1977; Thomas and Krogstad 1979). However, these studies have not explained special aspects of the materiality concept and its issues, such as whether materiality judgements differ with diverse auditor views or the company’s characteristics. Morris and Nichols (1988) empirically examined three aspects of auditor-materiality judgements: the association between audit-materiality judgements and publicly available financial information, the harmonisation of materiality judgements across the Big Eight audit firms and the correlation between materiality judgements and audit firm structure. They chose 361 companies that were clients of the Big Eight firms, and their results suggested that the materiality concept could provide publicly available financial information using ratios such as net income and interest-capitalised ratios. There were significant differences in materiality judgements between firms and there was correlation between materiality judgements and the structure of audit firms. Despite Morris and Nichols’ study explaining the relationship between materiality judgement and audit firm structure, the study did not show the effects of audit firm structure on materiality judgements. Further, they did not mention the effects of the materiality concept on audit adjustments.

Consequently, Wright and Wright (1997) examined the effects of the materiality concept as one of the important factors in audit adjustments. They collected data from 630 participants from a list of major US auditing-firm clients and then tested it using the Logit model. This model is one of the statistical tests that uses logistic regression to get more information from different factors. Findings indicated that there is a strong relationship between the materiality concept and audit adjustments; during an audit process, some financial statement adjustments should be recognised by a materiality judgement. However, Wright and Wright (1997) separated the materiality judgement and factors such as financial ratios, despite many other studies confirming that financial ratios, such as net income, are one of the materiality factors that affect materiality assessment (Chong 1992; Chen et al. 2008).

As discussed above, scholars in the accounting and auditing professions have been investigating the materiality concept and its issues since the twentieth century. In addition,
almost all previous studies in this field have recommended that research on the materiality concept should be continued (Newton 1977; Carpenter and Dirsmith 1992; Patterson and Smith 2003; Messier et al. 2005). This is because the materiality concept plays an important role in both the accounting and auditing professions and because of changes in global economic systems and the auditing role.

2.2.3 Definitions of the Materiality Concept in Developed Countries

Since the twentieth century, studies in both the accounting and auditing professions have attempted to define the materiality auditing concept (Queenan 1946; Dohr 1950). According to these studies, the differences in materiality concepts are due to issues such as differences in the needs of financial statement users and professional judgements. Therefore, a review of the historical development of the materiality concept of auditing will assist in understanding and interpreting the importance of the materiality audit due to the development of the auditing role.

In his study, ‘Materiality—What Does It Mean to Accounting?’, Dohr (1950, p. 55) stated that ‘in view of the nature of the problem it is not surprising that there are relatively few definitions of the term materiality’. Thus, he defined materiality as an item or items that influence the decision-making process. However, Dohr (1950) did not clearly explain the guidance of the materiality concept and what factors affect materiality assessment. This limitation of the guidance of materiality auditing led to an extension in the studies about materiality auditing.

Bernstein (1967) attempted to define the term ‘materiality audit’. He argued that the main goal of the process of auditing was to satisfy the level of assurance about whether financial statements fairly present (free from material errors or fraud) the financial position of a company. This is because it is very difficult to obtain an absolute opinion due to limited time and an increase in financial transactions. Therefore, auditors should not waste time on items that do not influence an audit report. In addition, a lack of guidance on the materiality concept caused many differences in the definitions of materiality and its measures. For example, Bernstein (1967) stated that several auditors used three per cent of net income to evaluate material items, while others used 26 per cent. Although he expressed several definitions of audit materiality from other scholars, Bernstein (1967, p. 87) did not express
one complete and clear definition and stated that ‘basic meaning is that there is no need to be concerned with what is not important or with what does not matter’. For this reason, Bernstein (1970) reported that definitions of the materiality concept and its guidance need future research.

In attempting to define audit materiality, Thomas and Krogstad (1979) stated that the definition of materiality in auditing relies on concepts that were used by auditors, preparers of financial statements and users of financial auditing reports. They also mentioned some aspects that affect the materiality concept, such as the economic situation and legal requirements. For example, a relationship between stock market requirements and materiality thresholds, such as a percentage of net income and disclosure requirements of material items are required by law. Thomas and Krogstad (1979) also compared the importance of the materiality concept in accounting and auditing and confirmed that auditors have more responsibility towards the materiality issue.

Thomas and Krogstad (1979, p. 74) also indicated that:

In an accounting context, materiality is generally related to the fairness of financial representation and the thresholds of user influence while materiality in auditing is related to an evaluation of internal control, selection and application of audit process and judging the sufficiency of evidence gathered.

From this definition of audit materiality, it can be stated that, until 1979, there was no specific materiality concept but, merely, general definitions of audit materiality. Therefore, researchers and accounting bodies have continued to seek a clear definition of the term ‘materiality’. In his study, ‘Auditors and Materiality’, Chong (1992) presented the historical development of materiality definitions. He evaluated and compared some definitions by the Institute of Chartered Accountants in England and Wales and by the Australian Accounting Research Foundation (AARF). He concluded that the item is important if its non-disclosure or disclosure in financial statements would affect decision making.

In the early twenty-first century, significant accounting scandals, such as the US Enron scandal and the 2001 Australian OneTel scandal, affected statutory auditing and brought more focus to materiality auditing (Chewning Jr and Higgs 2002; Carnegie and O’Connell 2007; Low et al. 2008). These global issues encouraged researchers to determine a specific
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definition of materiality. One of the earliest studies about the historical development of the concept of materiality was published in 2002: ‘What Does “Materiality” Really Mean?’ by Chewning and Higgs. Questions have risen in relation to what auditors mean by the materiality concept and what information should be included in financial statements. Chewning and Higgs (2002) declared that the need for a specific definition of materiality due to accounting-firm scandals led to an increase in relevant research. Since these scandals, auditors have been forced to interpret what they mean by materiality and how auditors can determine material items of financial statements. Chewning and Higgs (2002) stated that, until the Enron scandal, there was no clear definition of the term ‘materiality’.

After the international accounting scandals, the stock exchange market seemed to lose confidence in auditing reports (Sikka 2009). In addition, there was a lack of confidence among investors in audit reports. Consequently, the auditing profession believed that they needed to determine and improve some auditing concepts (Acevedo 2005). In this context, Coates (2007) also indicated that, after the bankruptcy of some large corporations, the Sarbanes-Oxley Act (SOA) was passed by US Congress in 2002. The objective of the SOA is to develop essential audit concepts and restore audit roles by discussing important problems within the audit profession.

Acevedo (2005, p. 1) stated that ‘the public’s trust and confidence in the auditor’s report came to a crashing halt when a wave of financial scandals plagued the US landscape during 2001 and 2002’. For that reason, the materiality concept was one of the five important concepts that were discussed by the SOA. He also mentioned the definition of the materiality concept by the FASB in Statement No. 2 as ‘an item if omitted or misstated it would affect economic decision making’ (Acevedo 2005, p. 33). Acevedo (2005) indicated that, although the definition of the materiality audit by the FASB is quite general, SOA also defines the materiality concept similarly to the FASB: the omissions or misstatement of an item or items that affects financial statement results.

Currently, one of the main issues with the guidelines of audit materiality is the existence of different financial statement users: investors, stakeholders, financial analysts and managers, despite auditors not being able to provide various types of audit reports. For this reason, Iyer and Whitecotton (2007) attempted to redefine the materiality concept. They distributed 108
questionnaires about materiality auditing, and they found an association between the materiality concept and the type of financial statement users, as well as qualitative factors. In general, the significance of a materiality definition in both accounting and auditing has been expressed in the literature review. However, other aspects of the materiality definition still need to be studied, including materiality factors and the costs and benefits of disclosing material and immaterial information (Lo 2010).

2.2.4 Factors Affecting the Auditor’s Assessment of the Materiality Decision in Developed Countries

The lack of obvious guidelines in audit materiality (such as the factors that affect auditors’ determination of materiality decision) causes many problems for both auditors and financial statement users (Brody et al. 2003). Auditors need guidelines for materiality factors to assess the significant item or items in transactions and the effects of those items on financial statement results. Instability in materiality assessments is often due to the omission of some quantitative or qualitative materiality factors from the audit function. Therefore, researchers like Lookabill and Dominiak 1977, Ahmad 2008 and Acito et al. 2009 have been concerned with factors that should be considered by auditors when assessing materiality decisions, particularly in developed countries.

Since the twentieth century, accountants, auditors and all financial statement users have been concerned with materiality information. In addition to the materiality concept, materiality factors have become important in determining material information. Woolsey (1973) attempted to explain materiality assessment by considering materiality factors. According to Woolsey (1973), despite personal judgement being the main factor in materiality decisions, the effect of the percentage of items in financial statement results is one of the important factors in assessing materiality decisions. Lookabill and Dominiak (1977) examined the determination of materiality and its factors in six different groups: financial managers in small firms, financial managers in large firms, auditors, financial analysts, bankers and academics. Their results indicated that the economic environment, financial characteristics of the firm and types of materiality judgements were factors that affected materiality assessment. However, they did not suggest specific factors that could be followed by auditors or whether these factors were quantitative or qualitative.
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In their study, ‘Using Materiality in Audit Planning’, Zuber et al. (1983) attempted to highlight the way materiality factors are taken into account during the audit process. They explained the materiality concept as it was defined by professional bodies and then presented the factors that could affect materiality assessment. They concluded that an auditor’s assessment of materiality decisions is influenced by many factors, such as client’s business, size of the entity and the nature of the client’s operations.

Similarly, Read et al. (1987) interpreted Statement on Auditing Standards (SAS) No. 47 to determine the materiality concept and the factors that could affect planning materiality judgements. They also examined seven national and 17 local public accounting firms. Their findings indicated that the most important materiality factors that affected planning materiality were: operating income before tax, total revenue, professional judgement, operating income after tax, total assets, current assets and shareholders’ equity. In addition, they found that the ‘operating income before tax was the most important factor in making materiality decisions. The second most important factor was ‘total revenue’ and the least important factors were ‘long-term debt’ and ‘current liabilities’.

Chewning and Higgs (2000) used a quantitative materiality approach to determine the factors that could affect materiality assessments. They studied more than 50 quantitative materiality measures to find factors that may affect materiality decisions. Their results concluded that revenue, asset, income and equity have a large influence on materiality assessment, while the nature of item and risk has a medium influence and earning trend, absolute size, return in investment, current capital and firm size have a small influence.

Although the quantitative materiality factors were examined by both professional bodies and academic studies, there was a lack of research on qualitative materiality factors. Thus, in 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin (SAB) 99 to present some qualitative materiality guidelines. SAB 99 indicated that the auditors should not merely rely on quantitative factors to evaluate an item’s materiality because illegal misstatements could affect the financial statements, even if by a small amount. Correspondingly, in 2001, the AASB of AARF concluded that auditors should consider qualitative factors that affect materiality assessment and the auditing report, such as the quality of internal control and designed accounting policy. Although many research and
professional auditing bodies attempted to determine qualitative factors for auditors, the need for further research into qualitative materiality factors was highly recommended.

Therefore, in the previous few years, considerable attention has been given to qualitative factors and differences between quantitative and qualitative factors. In the Netherlands, Blokdijk et al. (2003) examined factors that affect materiality assessments using the Big Five and non-Big Five firms between 1998 and 1999. They found that the main factors that affect materiality auditing decisions are the absolute value of the client’s rate of return on assets, the quality of the client’s control environment and assessed level of client complexity. Further, Blokdijk et al. (2003) indicated that there is a nonlinear relationship between planning materiality and size of a client. Conversely, in 2004, SAS No. 110, section 37, pointed out that the size of the client is one of the materiality factors that affects the consideration of relevant fraud risk factors and the material item.

Acito et al. (2009) and Juma’h (2009) represented the role of materiality consideration in SAB No. 99 and tested the factors that were outside authoritative guidance. According to Acito et al. (2009), accounting and auditing bodies do not provide clear guidelines for materiality factors, particularly if some accounting errors are material. They stated that prior audit research focused on quantitative materiality factors and their measures. Moreover, both studies argued that despite both some quantitative and qualitative materiality factors being cited in SAB No. 99 as guidance, other important materiality factors, such as prior actions and professional judgement were still outside this issue.

2.3 Prior Research Investigating the Materiality Audit in Developing Countries

In developing countries, there are many studies on the audit profession and its issues in developing countries. Some of these studies provided informative and comprehensive views on how the auditing profession should be performing, according to its role. However, there is little research on the significant aspects of audit issues, such as the materiality concept and factors that affect the auditor’s assessment of materiality (Salameh 2004; Al firjani 2006). Therefore, the objective of this section is to review prior studies of audit materiality in developing countries and attempt to explore the materiality concept and its issues from an
accounting and auditing-body view. In addition, the aim of this section is to explore the gap in developing countries, particularly in the aspect of audit materiality.

In comparing the research of the materiality audit in developing countries with that of developed countries, it should be noted that the audit profession in many developing countries has adopted Western auditing standards or international auditing standards. Although there are significant differences between developed and developing countries (such as educational outcomes, literacy levels and the structure of economic systems), some developing countries have adopted international accounting and auditing standards that are issued by developed countries. According to Zeghal and Mhedhbi (2006), developing countries that have the same characteristics as developed countries tend to adopt some of the Western and international accounting and auditing standards. Consequently, these countries have also applied definitions of materiality and materiality factors that were established by developed counties. However, in some developing countries, accounting and auditing bodies and academic researchers have attempted to issue national auditing standards of their own.

2.3.1 The Changes of Economic Systems in Developing Countries

Towards the end of the 1980s, many developing countries faced economic globalisation and changed their economic systems from the public to the private sector (Brownbridge and Kirkpatrick 2000). Moreover, there are some differences in these economic changes (applied economic market policy or semi-economic market) that have occurred in the developing countries due to factors such as the political system, the size of domestic resources and the history of changes. Academic studies (Bienen and Waterbury 1989; Grindle and Thomas 1989) explored the conversions of economic systems in developing countries and attempted to interpret the causes and effects of these changes.

According to Bienen and Waterbury (1989), the changes in economic systems occurred in Latin America many years earlier than in African countries. Political policies have played an important role in developing the changes in economic system in these countries. Bienen and Waterbury (1989) reported that, in Mexico, privatisation was encouraged by recent political policies or a shift of military leaders. Grindle and Thomas (1989) reviewed theories in political and economic science to explain the causes and effects of economic change on developing countries. They confirmed Bienen and Waterbury’s (1989) study and indicated
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that in many developing countries (e.g., Mexico, Brazil and Nigeria), changes to the political system leads to conversions of economic systems through policy-makers and policy choices. The findings of both studies indicated that changes in economic systems in developing countries pose questions about how these countries can contain the changes of economy and what type of accounting and auditing standards are useful.

Several studies of economic conversions in developing countries focused on the effects that the economic systems in industrial countries have on the economies of developing countries. Empirical studies show that there is a strong correlation between economic systems in developed countries and economies of developing nations. In their study on the effects of foreign political economy on the economy of developing countries, Summary and Summary (1995) asserted that some developing countries have been affected by the economic systems of industrial countries. They studied the political economy of developing countries and they found that, for years, many countries changed their economic system for a number of reasons. One of the main reasons is that the public sectors were inefficient in achieving the economic goal of these countries.

In the early twenty-first century, globalisation and financial crises strongly affected the economic systems of developing countries. These crises had a negative effect on the economic systems of developing countries, according to Freytag and Pehnelt (2008), who reviewed the debt of more than 100 developing countries between 1990 and 2004. They found that, during the global financial crisis, many developing countries borrowed money from industrial countries and international banks. For example, the International Monetary Fund lent more than $20 billion to Hungary, Pakistan and Latvia to support their economic systems against the global financial crisis. Moreover, international banks and industrial countries have involved developing countries in bringing changes to economic and accounting systems and adopting international accounting and auditing standards.

The economic systems of developing countries have obviously changed during the twentieth century and the early twenty-first century due to changes in political and economic policies and the global financial crisis. The next section determines the relationship between accounting systems in developing countries and IASs due to those economic changes.
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2.3.2 The Association between Accounting Systems in Developing Countries and Western and International Accounting and Auditing Standards

In the previous 60 years, numerous accounting and auditing standards have been issued by professional bodies in industrial countries. However, these accounting and auditing standards were adopted by developing countries because of the shortage of national accounting and auditing bodies (Lowe 1967). Moreover, most developing countries have adopted IASs in their own accounting systems because of internal and external factors, such as a lack of professional bodies and changes to political and economic policies.

Several cross-country studies have found that many developing countries are implementing international accounting and auditing standards. When the Netherlands Institute of Registered Accountants organised its annual accountant’s day in 1980, Enthoven (1980) presented his paper, ‘The Accountant in the Third World’. Enthoven (1980) found that the accounting and auditing professions in developing countries had been strongly influenced by IASs. He indicated that third world countries have adopted IASs due to internal factors, such as insufficient professional interest and inadequate, inefficient and incompetent professional bodies. In addition, external organisations, such as the World Bank and international accounting firms, influenced developing countries to adopt international accounting and auditing standards. Enthoven (1980) also determined schools of accounting that affect the accounting profession in developing countries. These international schools, including the UK, US and Franco–Spanish–Portuguese schools, have been exporting their accounting and auditing standards to various developing countries.

At the end of the 1980s, considerable attention was given to the relationship between accounting systems in developing countries and IASs in order to learn the factors that led to acceptance of international accounting and auditing standards by developing countries. Wallace (1990) and Parry and Groves (1990) discussed the factors that drive developing countries to adopt international accounting and auditing standards and the difficulties of this issue. Wallace (1990) studied accounting systems in developing countries during the period between 1973 and 1988. He indicated that changes to the economic system in developing countries, the lack of local accounting standards, the culture and the membership of international accounting bodies were the most important factors that led to implementation of international standards. Evidence from Wallace (1990) showed that there were strong cultural effects on adopting accounting systems; indeed, the French accounting system is adopted by
many French-culture African countries. However, Wallace (1990) pointed out that the problem in some developing countries is that they adopted IASs without undertaking a review process of the economic and educational gap between developed and developing countries. In their study, Parry and Groves (1990, p. 119) stated that ‘Bangladesh has a professional accounting structure modelled on the United Kingdom’. They concluded that, despite Bangladesh adopting Western accounting standards, its accounting systems have faced many difficulties, such as a lack of proper accounting and auditing education. Therefore, Wallace (1990) and Parry and Govers (1990) recommended that the accounting and auditing systems in developing countries should be adjusted based on their environment, rather than simply importing foreign standards.

Similarly, in their study, ‘Auditing in China, Recent Developments and Current Problems’, Skousen et al. (1990) reviewed the development of the auditing profession in China. They provided an example in support of Wallace’s (1990) study, stating that, due to factors such as a lack of accounting education and national accounting standards, international auditing and accounting standards are implemented by many developing countries, such as China. They also indicated that, in China, despite the first local auditing bureaus being established in 1982; the auditing profession faced many difficulties, such as a shortage of professional auditors and the effects of government on accounting regulations and policies. Therefore, Skousen et al. (1990) argued developing countries, such as China, could not stay away from international auditing standards, despite the gap between developed and developing countries.

Agum et al. (1999), Purdy and Malgwi (1999) and Wallace (1999) investigated the same issue regarding factors that can lead to the adoption of Western accounting practices in developing countries. In addition, they investigated whether developing countries can be assisted by international accounting and auditing standards. As a special case for Botswana, Agum et al. (1999) evaluated the disclosure requirements and accounting standards and then stated that, as the economy had been growing rapidly and there was a shortage of national accounting standards, Botswana adopted IASs without any modification. However, Agum et al. (1999) argued that, despite adoption of IASs in Botswana, evidence indicated that the national auditing profession continued to face challenges, such as disclosure of corporation fraud, which cost approximately $30 million in 1992. This is because there are significant national factors that affect the auditing role, including culture and education (Wallace 1990).
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Consistent with prior research regarding the accounting and auditing professions in developing countries, Purdy and Malgwi (1999) and Wallace (1999) supported previous studies on the factors that led to acceptance of international accounting and auditing standards by developing countries. Both studies argued that developing countries have adopted IASs due to reasons such as the growth of the economy, the changes of political and economic systems and the increase in the accounting and auditing role. Additionally, Wallace (1999) divided these factors into four groups: environmental, educational, political and professional.

In the early twenty-first century, many developing countries attempted to develop their accounting and auditing systems because of changes in political and economic policies. King et al. (2001) in Romania, Daniel et al. (2001) in Slovakia and Solodchenko and Sucher (2005) in the Ukraine investigated the influence of political and economic factors on their national accounting systems. These studies supported the view that developed countries exert significant influence on the accounting and auditing standards of developing countries due to factors such as globalisation of the economy and changes of political policies. Following the conversions of political policies, many developing countries, such as Eastern European countries, changed their economic policies from the public sector to the private sector (free market economy). Therefore, in Eastern European countries, these changes led to the countries becoming EU members by adopting international standards.

Similar to the findings above, Al-Qahtani (2005) explored other factors that affect the accounting and auditing systems in developing countries by studying the development of accounting regulation in six Arabic countries: the Kingdom of Saudi Arabia, Qatar, Oman, the United Arab Emirates, Bahrain and Kuwait. As previously discussed, many developing countries do not have sufficient accounting and auditing bodies to establish national standards. For example, Al-Qahtani (2005, pp. 220–221) stated that:

In Qatar, there are no national accounting or auditing standards. There is no society and definitely there is no organised profession. Except for banks, all financial accounting and reporting requirements and auditing procedures are found in the commercial code and the company law.

Therefore, auditing and accounting professions are organised by government legalisation, such as commercial, tax and company laws, and some IASs are adopted.
The above studies concluded that, despite developing countries having implemented some or all international accounting and auditing standards, they still need to improve their accounting and auditing systems. Developing countries should be able to understand their economic changes, as well as economic globalisation, and select an optimal path for their accounting and auditing systems to be harmonised with economic globalisation.

2.3.3 Factors Affecting the Auditor’s Assessment of the Materiality Decision in Developing Countries

In developing countries, there is little research on materiality auditing. According to Alfirjani (2006) and Ahmad and Hakima (2010), few studies have been conducted on how the accounting and auditing professions provide explicit guidance in the production of material information and materiality decisions. As discussed in the previous section, this is due to a number of developing countries having implemented all or some of the international accounting and auditing standards, despite differences in the economic and social environment between the developed and developing countries. There have been few attempts to determine a materiality audit and its factors in developing countries, but they are still dependent on studies of developed countries.

The literature on accounting and auditing in developing countries since the 1960s has tended to focus on materiality. Some of these studies were a mixture of descriptive and conceptual analysis and others contained hypothetical tests. Early research to characterise the materiality concept was done by Sapa (1969), who stated that financial statements seemed to be more complex than before. In addition, the number and type of financial statement users also increased day by day. Therefore, the important question is whether information intensity is useful for various financial statement users in their decision-making process. At this time, financial statements have included a large amount of information; some information has a strong effect on financial statement results, while other information does not. The study concluded that, due to the increasing size of financial statements and type of financial statement users, auditors cannot ensure that all of these financial details are free from misstatements. For this reason, the materiality concept can assist auditors in determining whether financial statements fairly present the financial position of the company.
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A number of studies in developing countries have attempted to identify the materiality concept in both accounting and auditing and the factors that assist auditors’ assessment of material items of financial statements. Ata-Allah (1973) attempted to identify a materiality audit and its thresholds. However, as mentioned in the previous section, many accounting and auditing studies in developing countries have been affected by international standards. Therefore, in his study, ‘Materiality in Auditing’, Ata-Allah (1973) stated that auditors should notice whether each item has any effect on the financial statement results in order to determine the materiality of the financial statement item. Ata-Allah (1973) also noted some materiality thresholds, which were presented by studies in developed nations and include absolute value and some financial percentages, such as net income before income tax, total assets and working capital. In her study, ‘The Basics of the Scientific Principle of the Materiality Concept and Use in the Areas of Accounting’, Farraj (1982) discussed some aspects of the materiality concept in accounting, such as identification, implementation and the measurements of the materiality concept in the accounting area. She concluded that, to determine the material items of financial statements, the auditors should classify the needs of financial statement users.

Moreover, there are some professional accounting and auditing organisations in developing countries that are concerned with the materiality concept and its aspects in accounting and auditing. The SOCPA, a professional accounting organisation in a developing country, was established in 1991 under the supervision of the Ministry of Commerce. Its aim was to promote the accounting and auditing professions and all matters that might lead to the development of the professions and the upgrading of their status (SOCPA 2000). The objectives of SOCPA include reviewing, developing and approving accounting and auditing standards. Therefore, in 1993, the SOCPA established a committee to prepare and develop auditing standards that could guide auditors. In 1998, the Gulf Countries Cooperation Accounting and Auditing Organization (GCCAAO) was established by a group of Arabic countries (GCCAAO 2000).

In 2000, both the committees of the auditing standards of SOCPA and GCCAAO developed the first auditing standard (No. 10) that related to the materiality concept in order to explain audit risk and materiality auditing. The objective of this standard (stated in paragraph 103 of the standard) is to assist auditors to determine material items during an audit of financial statements. Auditing Standard No. 10 (in paragraph 109) requires that the auditor must
Consider audit risk and the materiality concept when planning and performing the audit processes. In addition, the materiality concept is identified as an item or items that should be disclosed in the financial statements. The standard has shown that auditors can use the materiality concept to provide reasonable assurance on whether financial statements are free from misstatements. However, it has not clearly explained the factors that affect the auditors’ estimation. The standard has simply stated that the materiality audit depends on quantitative and qualitative factors and the personal judgement of the auditor (GCCAAO 2000).

In the early twenty-first century, the materiality audit was discussed in different developing countries by various Jordanian studies, including Salameh (2004), Mustafa (2004), Assaf (2006) and Ahmad (2008). In his study, ‘The Auditors of the Jordanian Publicly Held Companies, Personal Characteristics and Its Effects on Their Decisions Related to Materiality’, Salameh (2004) attempted to clarify the materiality concept through the study of the effect of auditors’ personal characteristics on their materiality decisions. The study’s subjects included 103 Jordanian external auditors who had an average experience of 12 years. His findings indicated that there was still considerable debate between audit educators and audit practitioners about the materiality decision. In addition, the academic qualifications of auditors and the auditor’s experience affected personal judgement on materiality decisions. He recommended that the auditing profession and academic boards should conduct sufficient research on the materiality concept and the factors that affect the materiality auditing decisions.

Mustafa (2004) studied the materiality of financial and non-financial information in the performance of the external auditor in the planning stage of the audit. The study included 39 external auditors as participants in an experiment where both financial and non-financial information were misstated. The findings indicated that the auditors relied more heavily on financial information than on non-financial information in audit processes, for example, the auditors focus on some financial ratios, such as inventory turnover and accounting receivable turnover. However, non-financial information was used as supporting evidence.

In empirical studies on quantitative factors that affect materiality decisions, Assaf (2006) and Ahmad (2008) have examined whether the financial ratios derived from financial statements can assist financial statement users to discover material items and both errors and fraud in financial statements. Assaf’s (2006) study answered the above question by developing a
statistical model that included the characteristics of misstatements of financial statements. Assaf (2006) selected 22 companies and used 40 financial ratios to discover errors and fraud in financial statements. In the second study by Ahmed (2008), a questionnaire was distributed to a sample of 30 credit analysts and 65 paper analysts in the Amman Stock Exchange, and the mathematical averages and standard deviations were used.

Both studies provided empirical evidence that financial ratios could assist financial statement user groups to determine material items and detect the occurrence of fraud in financial statements. The findings of Assaf’s (2006) study concluded that other current assets, other noncurrent assets and other noncurrent liabilities affect financial statement results. Therefore, auditors can also use these ratios when they assess materiality decisions. Ahmad’s (2008) results also concluded that financial ratios could assist financial statement users to distinguish between the accounting net profit and net cash flow. Thus, financial statement users can use the financial ratios that are derived from cash flow statements to determine the material item. Consequently, these ratios can also assist external auditors in determining material items in financial statements, regarding the needs of users of these statements.

Although developing countries have attempted to improve their audit profession and establish their national auditing standards, including the materiality audit, these attempts were limited by a range of reasons. The main reason is that the auditing profession in developing countries still relies on international accounting and auditing standards, despite fundamental differences in the political and economic environment and culture.

2.4 Libyan Context and the Materiality Auditing

The objective of this section is to briefly present the development of an auditing profession in Libya and explore the materiality auditing issue. This section also discusses the efforts applied by the Libyan Government to develop an auditing profession by regularising accounting and auditing standards and practices. Moreover, additional and specific details that relate to Libya, as a case study, will be discussed in the next chapter.
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2.4.1 The History of Auditing Development in Libya

According to Kilani (1988), the history of auditing development in Libya as a developing country can be divided into four stages: before 1911, 1911–1969, 1969–1990 and 1990–present. These stages are discussed in the following sections.

2.4.1.1 The First Stage (Before 1911)

During this period, Libya was under the rule of the Turkish Government, the country was poor and the economy depended entirely on primary agriculture. In addition, there was a lack of education due to poverty. Therefore, the auditing profession did not exist in Libya during this stage (Kilani 1988).

2.4.1.2 The Second Stage (1911–1969)

In 1911, Libya was occupied by Italy, which established many businesses, such as the banking and agricultural industries. Those businesses were arranged by Italian enterprises that brought their accountants over from Italy. Consequently, the Libyan accounting and auditing professions were influenced by Italian accounting standards, which included the Italian income tax law (Kilani 1988).

By the end of the 1950s, and due to the discovery of oil in Libya, economic activities increased dramatically in different areas, including the industrial, agricultural and banking sectors. This led to an increase in demand for professional accounting services for the government, investors, creditors and business managers. In 1953, the Libyan Government established commercial law in order to organise business activities and regulate the accounting and auditing professions. Moreover, Ahmad and Gao (2004, p. 369) stated that ‘after discovery of oil in the early 1960s, in Libya, many foreign accounting firms from Egypt, the US and the UK opened branches in Libya’. The discovery of oil encouraged the development of the accounting and auditing professions in Libya. However, Kilani (1988) indicated that, during this period, the accounting and auditing systems were greatly influenced by the UK education system.
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2.4.1.3 The Third Stage (1969–1990)

In 1969, a military coup took over the governing of Libya and started the establishment of a public sector economy. Beginning in the 1970s, business activities were controlled by the new Libyan Government, which introduced its regulations and administrative systems that related to both the political and economic systems, such as financial policies (Central Bank of Libya 2010). Moreover, due to the increased need to create professional accounting and auditing organisations in order to develop a national auditing profession, the Libyan Accountants and Auditors Association (LAAA) was established in 1973. During this period, the accounting and auditing policies moved towards the public sector due to the national political and economic policies. However, Buzied (1998, p. 163) argued that ‘there is a general agreement between public accountants that the LAAA has played only a limited role in almost all of accounting and auditing issues’. This means that it did not play a significant role in providing the main requirements to the national auditing profession, which were to provide clear regulations and standards and to improve auditing education and training.

2.4.1.4 The Fourth Stage (1990–Now)

By the end of the twentieth century, Libya witnessed dramatic changes to its political and economic policies; Libyan economic policy moved towards privatisation by shifting from a public to a private economy. Otman and Karlberg (2007, p. 219) provided evidence on the changes to the Libyan economy and stated that ‘in 1989, the General People’s Committee issued a new resolution, No. 427, regarding the creation of machinery for implementing the transformation of state economic units to private ownership’. This issue permits and regulates private-sector business in Libya, which was prohibited before this stage. One of the most important requirements that economic changes have made in the Libyan auditing profession is the need for national accounting and auditing standards. Therefore, to meet the demands of this transition and as reliability of financial and non-financial information has an important role to play in the achievement of economic goals, Libya needs to develop its own accounting and auditing standards.

As mentioned earlier, many developing countries have adopted international accounting and auditing standards due to a variety of reasons, such as a lack of sufficient professional bodies. In 2005, the LAAA established a Committee of Accounting and Auditing Standards (CAAS)
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to prepare and develop auditing standards that would guide Libyan auditors. The CAAS attempted to revise foreign auditing concepts and standards and establish national standards that included disclosure and materiality concepts. By 2005, the committee issued its first exposure draft of Libyan accounting and auditing standards (LAAA 2005). These standards are divided into five groups: presentation of financial statements, disclosure requirements, assets measurement, income measurement and investment measurement.

The presentation of financial statements represents the first group of Libyan accounting standards and refers to the presentation of accounting information and the materiality concept. The standard appears to be consistent with international standards; however, paragraph 26 points out that, currently, the financial statements contain a lot of financial and non-financial information. Therefore, full disclosure of information can confuse financial statement users. For this reason, both paragraphs 51 and 90 show some material items that should be presented in a balance sheet and income statement, such as cash, intangible assets, depreciation expenses and other income.

2.4.2 The Current Situation of the Auditing Profession in Libya

Although the first draft of the Libyan accounting and auditing standards attempted to provide effective national guidance to the Libyan auditing profession, there are still some issues evident in the standards. Ahmad and Gao (2004) indicated that there is still a lack of efficient Libyan accounting and auditing professions due to political and economic factors. According to Ellabbar (2007), the Libyan Government, through its regulatory processes, has an important influence on the accounting profession, including its influence on commercial law, income tax law and the petroleum law. In addition, the new economic policies that are enforced by the Libyan Government affect accounting disclosure.

Numerous international concepts and standards have been adopted in Libya with little regard to their relevance in the Libyan environment, despite differences between the Libyan and Western environment. For example, many concepts, such as the materiality concept and net income, are defined exactly as Western definitions are defined (Ahmad and Gao 2004). However, in his recent study, ‘Libyan Accounting Standards from the Libyan Accountants’ View’, Abouzid (2010) stated that, until now, there have been no international or national accounting standards that have been officially adopted by the Libyan accounting and auditing
professions. Abouzid (2010) concluded that the main reason for this is a lack of harmonisation between the LAAA and the Libyan regulators. Consequently, there is still an absence of systemic regulation to form effective auditing in the Libyan audit profession.

Therefore, based on the discussion above, many studies and improvements should be achieved to fill the gap between the Libyan auditing standards and the international standards and also between audit education and audit practices.

2.5 Conclusion

This chapter explored the literature on materiality auditing in both developed and developing countries. In developed countries, the findings indicated that the issue of materiality auditing has been known for a long time. However, many accounting and auditing studies have recommended future research on materiality through specific aspects, such as materiality factors, cost and benefits of disclosing material and immaterial information.

The increase of corporation size and the volume of financial transactions caused a shift in the audit role to focus on material information in auditing decisions. In addition, the increase in types of financial statement user groups forced auditors to search for items that influenced the financial statement results. Moreover, more attention is currently being given to the effect of qualitative factors on materiality auditing decisions.

In terms of materiality auditing in developing countries, this literature review found that there is still a lack of efficient auditing studies relating to materiality auditing in these countries. Some developing counties have adopted the international accounting and auditing standards (regarding materiality auditing) after changing their economic policies.

Finally, in a Libyan context, the findings from the literature review confirmed that Libya as a developing country has suffered from the instability of the political and economic policies that affected the auditing profession. Consequently, no guidelines on materiality auditing decisions were provided for Libyan auditors, and the need for further materiality auditing research has been strongly suggested.
Chapter 3: Theoretical Framework—Materiality Auditing and the Audit Expectation Gap

3.1 Introduction

This chapter aims to outline the relationship between the expectation gap and materiality auditing that represents the main theories relating to the auditing profession (agency and policeman theory). In addition, the chapter will explain the most important features of the auditing profession, such as the auditor’s responsibility and its relationship to the importance of materiality auditing. The importance of this chapter has also been derived from the fact that this research represents the earliest academic research to explore the main issues in materiality audit framework in Libya.

3.2 The Expectation Gap and Materiality Auditing

Although the audit expectation gap has been known for a long time, it is still one of the most important topics in the auditing profession. Additionally, the relationship between the audit expectation gap and materiality auditing has increased dramatically (Salehi 2011). This relationship determines whether auditors are providing adequate information to financial statement users. Further, the expectation of users is that all financial statements are free from material errors and fraud. Salehi and Rostami (2009) stated that the audit expectation gap is still one of the most important issues between financial statement users and auditors. They also stated that ‘the majority of investors want from an audit absolute assurance that the financial statements are free of all types of material misstatements’ (Salehi and Rostami 2009, p. 143). In addition, research shows that the audit expectation gap is one of the main factors that caused the global financial crisis.

As previously mentioned, the main aim of the auditing profession is to report whether financial statements present the true financial position of the entity. Thus, to achieve this aim, auditors need to ensure that material information has been presented truly in the financial statements. In general, the importance of the materiality concept in the auditing profession derives from the need for material information. Moreover, historically, the increase in
corporation size (which led to an increase in financial and non-financial information) has challenged the auditors’ ability to ensure that important information is provided in financial statements. This has created one of the most difficult issues that the auditing profession needs to face, which is an expectation gap between the auditors and financial statement users.

Various theories have been written about the emergence and importance of the auditing profession, including agency, signal, policeman and inspired confidence (Volosin 2008; Salehi 2010). This chapter discusses two main theories: agency and policeman, which reveal the need for an auditing profession and explain the role of the materiality auditing concept and its importance (Babatunde and Kolawole 2012). The following sections, 3.2.1 and 3.2.2, will discuss the relationship between materiality auditing and the expectation gap concept through the agency and policeman theories.

3.2.1 The Expectation Gap, Materiality Auditing and the Agency Theory

Since the twentieth century, much economic, marketing, accounting and auditing research has been conducted on the agency theory (also known as principles and agents) (Ross 1973; Haka and Chalos 1991; Fooladi 2011). Moreover, Eisenhardt (1989) and Schuster (1990) indicated that different areas have used agency theory in their research, including economic, accounting and financial studies.

The agency theory emerged in order to organise business activities due to the increase in size and capital of corporations, as well as the owners of these business entities (Ross 1973). The theory is primarily based on the separation of management from the owners (shareholders) who supply the company’s capital. According to the agency theory, a contract between the owners or shareholders and the managers should be signed in order to manage the company’s activities. Consequently, the demand for a third party (external auditor) has increased in order to approve the managers and accountants’ duties, such as preparation of financial statements.

In the past, company size was smaller, so transactions statements were also smaller. Therefore, auditors could confidently assure the company that financial statements were free from all errors or fraud. However, with the size of corporations and multinational operations increasing, the volume of transactions has increased sharply. This has led to auditors finding
it difficult to give an absolute opinion regarding the truth of all information in the financial statements.

In terms of the materiality auditing concept, the relationship between the agency theory and materiality auditing can be noted from the concept of the auditor’s responsibility (as a third party regarding the agency theory). The concept requires that an auditor give an expert report on whether financial statements are free from material errors and fraud and reflect the company’s true financial position. DeJong and Smith (1984) also indicated that the external auditor has a responsibility to give an expert opinion on whether information in financial statements is adequate and reliable for financial statement users to make decisions. Azzopardi (2009, p. 14) also indicated that ‘materiality is a term often used to describe the scope of the auditor’s responsibility towards the general public’. This means that auditors need to ensure that material information is provided to financial statement users in order to make future economic decisions.

Figure 3.1 presents the relationship between the expectation gap, materiality auditing and agency theory.
Figure 3.1: The Expectation Gap, Materiality Auditing and Agency Theory

Figure 3.1 shows that, according to agency theory, the expectation gap between financial statement users and auditors increased rapidly due to the increase of corporation size and the need for material information. Thus, the materiality concept can play an important role in solving this issue.

The question that has arisen from this theory is ‘what adequate and reliable information should be provided by auditors?’ Therefore, the need for a clear definition of material information and the factors that affect materiality decisions has also increased. This means that both external auditors and financial statement users have attempted to determine the
important information in financial statements. Messier et al. (2005) stated that the materiality
casebook has become one of the most important issues in auditing research. It has also been
recommended by many accounting and auditing studies (Acevedo 2005; Acito et al. 2009).
Thus, current studies (Lo 2010; Manita et al. 2011; Budescu et al. 2012) have attempted to
define and determine the concept of materiality auditing in order to determine the auditor’s
responsibility regarding agency theory.

3.2.2 The Expectation Gap, Materiality Auditing and the Policeman Theory

The policeman theory was a popular auditing theory before the 1940s, when the common
belief was that external auditors must detect all errors and fraud within financial statements.
Salehi (2010) indicated that, during the first three decades of the twentieth century, the
auditing profession applied the policeman theory, which required an absolute opinion that
financial statements were free from errors or fraud. However, he stated that, by the 1950s and
due to the voluminosity of the details in financial statements, the auditing method shifted
from an absolute concept to a true and fair concept. This meant that statements were to be
presented fairly and there should be no material errors or fraud within them.

Although the debate about the auditing role and auditor responsibility has continued for
several decades, it has yet to be systematically taken up by many auditing bodies or academic
research. The main reason for this is that many financial statement users still believe that the
auditing profession must have responsibility for an absolute opinion about the financial
statements that have been audited. In November 1972, the Auditing Standards Board (ASB)\(^1\)
issued SAS No. 1 (Section 110)\(^2\) under the title ‘Responsibility and Functions of Independent
Auditors’. Paragraph 2 stated that:

The auditor has a responsibility to plan and perform the audit to obtain reasonable
assurance about whether the financial statements are free of material misstatements,
whether caused by error or fraud. Because of the nature of audit evidence and
characteristics of fraud, the auditor is able to obtain reasonable, but not absolute,
assurance that material misstatements are detected. (SAS No. 1 1972)

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\(^1\) ASB is a senior committee of the American Institute of Certified Public Accountants for auditing.
\(^2\) See also sections 312, 317 and 320.
In 1998, Farrell and Franco sent 2,000 questionnaires to accounting firms, including the Big Six US accounting firms. The aim of Farrell and Franco’s (1998) study was to examine whether auditors should act as police or detectives when conducting an audit. The majority of responses indicated that auditors should not conduct their audit work as if they were a policeman; however, they stated that auditors should accept a reasonable level of responsibility to detect errors and fraud. Therefore, in 2006, the Auditing and Assurance Standards Board (AUASB)\(^3\) launched auditing standard ASA 240, ‘The Auditor’s Responsibility to Consider Fraud in an Audit of a Financial Report’, in order to explain the auditors’ responsibility. ASA 240 pointed out that auditors should evaluate the company’s policies and assess the materiality of financial statements in order to design audit procedures. In 2008, ASA 240 was revised by the AUASB under the title ‘The Auditor’s Responsibilities Relating to Fraud in an Audit of a Financial Statement’ and stated that:

An auditor conducting an audit in accordance with Australian Auditing Standards is reasonable for obtaining reasonable assurance that the financial report taken as a whole is free from material misstatement, whether caused by fraud or error (see Auditing and Assurance Standards Board 2008).

The International Federation of Accountants (IFAC) (2006) also investigated the relationship between auditor responsibility and the materiality issue under the title, ‘Auditor’s Responsibility to Consider Fraud in an Audit of Financial Statements’. The IFAC indicated that the objective of an audit is to provide reasonable assurance that the financial statements are free from material errors and fraud (IFAC 2006).

The financial crises of Enron, WorldCom and Lehman Brothers’ Bank and the subsequent collapse of these companies after receiving clean audit opinions raised questions on whether the auditors acted responsibly in performing their auditing work (Todea and Stanciu 2009; Sikka 2009). It is apparent that there is a need for reasonable assurance that the financial statements fairly present the entity’s financial situation and are free from material errors or fraud. Ittonen (2010) also supported the above discussion about the policeman theory in the auditing profession. He stated that, although the theory was presented in the early 1900s, the argument regarding the policeman theory and auditor responsibility has been continually

\(^3\) The Auditing and Assurance Standards Board is an independent agency of the Australian Government for auditing and assurance standards.
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raised. The main reason for this is the global financial crisis, which derived from a failure of auditors to provide fair financial statements (see also Sikka 2009).

Some countries have endeavoured to tackle the issue of the materiality concept; for example, in Australia, the AUASB amended ASA 240, paragraph 5, to state:

An auditor conducting an audit in accordance with Australian Auditing Standards is responsible for obtaining reasonable assurance that the financial report taken as a whole is free from material misstatement, whether caused by fraud or error.

However, this is not the case in many developing and developed countries that continue to rely on the policeman theory. Therefore, the main reason for presenting the policeman theory in this research is because the theory is still publicly debated in terms of the relationship between the theory and the key auditing concepts, including auditor responsibility (as policeman to detect all errors and fraud) and the materiality concept (assurance free from material error and fraud). Adeyemi and Olowookere (2011) and Cohen et al. (2012) stated that the power of the policeman theory is derived from the fact that the auditing profession is still unable to explain the meaning of reasonable assurance. This is compounded by the increase in financial statement user groups and the inability of those users to understand the auditing role.

Thus, one of the main reasons for the expectation gap in the auditing profession stems from the fact that different financial statement user groups continue see the auditor’s role as a policeman’s role, while the audit profession see their role as providing reasonable assurance. This means that, while financial statement users continue to believe that external auditors must assure material information in financial statements, the auditing profession will continue to face challenges in determining what material information is (Brody et al. 2003; Chen et al. 2012).

3.3 Materiality Auditing and the Expectation Gap in Libya

The section explores the gaps in existing national laws, professional body standards and the education system relating to materiality auditing in Libya.
Chapter 3: Theoretical Framework—Materiality Auditing and the Audit Expectation Gap

In Libya, the audit expectation gap has been derived from the external and internal environments of the auditing profession. The Libyan accounting and auditing professions have suffered from the external effects of government control over requirements, such as inadequate national laws relating to materiality auditing. For example, the Institution of People’s Control and Follow-Up (IPC) was one government agency that governed the accounting and auditing professions in Libya. Dardor (2009, p. 50) stated that ‘although there are legal requirements for the auditing of these enterprises, no specific guidelines for carrying out such audits are given by authorities’. In addition, in terms of the internal environment, it is obvious that there is a lack of self-organisation and proper education (Aldarwish and Alghali 2006).

As the auditing profession in Libya is suffering from an absence of research that highlights an auditing framework, several Libyan accounting and auditing researchers (Abuzied 2006; Aldarwish and Alghali 2006; Alhsada 2007; Eldarragi 2008) have recommended the need for future studies to explore and analyse the expectation gap that comes from the legal and regulatory framework, auditing profession and auditing education in Libya.

Thus, one of the important contributions in this research is to explore and highlight the auditing-process framework in Libya, especially materiality auditing decisions. As this study aims to achieve a comprehensive exploration of materiality auditing in Libya, the following sections will present the main framework’s features of materiality auditing in Libya.

3.3.1 The Gap in Libyan Law

One aspect of this research is derived from exploring the materiality auditing issues within Libyan laws and regulations. According to Shareia (2006), national laws and regulations could have a significant effect on national professions and their progress, including the auditing profession. This means that state laws play an important role in organising and improving the auditing performance. However, within Libyan laws and regulations, there is a lack of national auditing standards, especially in detailed guidelines for making materiality auditing decisions. Thus, the following discussion about the main Libyan laws relating to auditing standards will highlight materiality auditing in Libya within these laws.
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3.3.1.1 Tax Law

Libyan tax law was issued in 1923 (based on Italian tax law with amendment for the Libyan business environment) and amended in 1948 and represents the earliest law in Libya. Due to the Libyan economic situation at that time, the tax law was issued only to collect individual taxes, which were raised from primitive business, such as agriculture and handcraft. Thus, such business activities did not require a high level of auditing expertise and standards.

In 1973, the Libyan Government amended the tax system and named it ‘Income Tax Law No. 64’ in order to meet the major changes in political and economic policies (the state’s independence, discovery of oil and shift in economy to a socialist system) (Libyan State 1973). The law endeavoured to launch guidelines for the national auditing profession, but it did not provide adequate information that could assist external auditors during the auditing process. For example, Articles 55 and 64 of the income tax law pointed out that accountants should only use a straight-line method in order to estimate depreciation of the assets (Law state 1973, No. 64). However, these articles did not mention the applicable method for different types of assets or the length of time a specific method should be followed. Another example is that there was no separation between ordinary income and extraordinary income (even though the extraordinary came from the sale of company assets) and all types of income were subject to income tax law.

In 2004 and 2010, income tax law was also amended by the General People’s Congress, yet there were no requisite amendments to the auditing guidelines and standards. For example, article 1 of the law, in 2004, stated that ‘There shall be subjected to tax any income resulting in Libya from any assets existing therein, whether material or immaterial or from any activity or work therein’. Similarly, the amended income tax law in 2010, article 1, stated that ‘Any income generated in Libya, form any resources, either financial or non-financial, from any activity or work is subject to tax’.

By reviewing the amended income tax law, the Libyan external auditors did not find any specific statements regarding the accounting and auditing standards that should be followed. This means that the income tax law did not provide clear guidelines for the accounting or auditing standards and, ultimately, increased the expectation gap in Libya.
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3.3.1.2 Commercial Law

Libyan commercial law is one of the earliest national laws and was launched in 1953. It aimed to organise business activities and their processes. Regarding the accounting and auditing professions, the law only generally discussed accounting issues, such as the book of statutory auditor’s meeting, cost of inventory and legal reserves. Although Libyan commercial law has been amended several times, it did not present an obvious view regarding auditing requirements and standards in Libya. In 2010, the latest version of Libyan commercial law represented the main items of financial statements and the measurement’s methods (Libya State 2010, Commercial Law No. 23). In terms of the auditing profession, it can be noted that there is no such explanation of the external auditing processes, such as the standards that should be followed and the auditor’s responsibility. In general, article No. 209 of the law indicated that the external auditors should report the extent to which the financial statements are free from errors and fraud and whether these statements have been prepared under the accounting and auditing standards. However, once again, the commercial law did not determine the accounting and auditing standard that should be followed to reduce the expectation gap.

3.3.2 The Gap in the Auditing Professional Body in Libya

As mentioned earlier, the Libyan political and economic environment had a negative effect on the national auditing profession, which increased the audit expectation gap in Libya. Before the discovery of oil, the auditing profession in Libya was supplied mainly by the foreign accounting firms of Italy, the US and the UK. After the discovery of oil reserves, some public organisations were formed in order to establish a national auditing profession. Bodies, such as the State Accounting Bureau in 1955 (Law No. 31), the General Institution for General Administration in 1988 and the IPC in 1996, aimed to establish and develop a national auditing system with national guidelines and standards (Dardor 2009).

The LAAA was established as an independent professional organisation under Law No. 116 in 1973. However, it could not play a significant role in fostering the national profession, especially after the 1969 coup, due to restrictions imposed by the political system. The coup caused many radical changes in the national laws, regulations and the organisational
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restructure of the professional association, which, consequently, led to instability in the economic environment (Schwab 2010).

As the Libyan auditing profession resulted from an improper environment, Libyan external auditors followed different and mixed sources of auditing guidelines and standards (Abuzied 2006; Aldarwish and Alghali 2006). This included guidelines from international accounting and auditing standards and from developing countries, in addition to the local laws and regulations.

In 2005, the first draft of the Libyan accounting and auditing standards was launched by the LAAA. It was divided into five chapters: presentation of financial statements, disclosure requirements, measurement of assets, measurement of income elements and measurement of investments (LAAA 2005). However, the draft has not yet been approved by the Libyan Government or the LAAA. Moreover, in a materiality auditing context, the draft of the Libyan accounting and auditing standards does not include adequate information about the materiality auditing concept and its guidelines and standards.

3.3.3 The Gap in Libyan Auditing Education

The insufficiency of applicable auditing education has also increased the expectation gap in Libya. Studies (Kilani 1988; Mahmud 1997; Aldarwish and Alghali 2006) that investigated the adequacy of auditing education for the auditing profession in Libya found that there is still a credibility gap between the needs of the auditing profession and the auditing education’s outcomes. Although the auditing education curriculum is based on Western concepts and standards (the capitalist market), the Libyan economy has adopted different forms. Before 1969, it adopted a mixed capitalist and socialist market; from 1969 to the beginning of 1990, it shifted to state ownership and, from the 1990s, the Libyan Government launched several new laws and regulations in order to privatise the state’s economy. However, auditing education has not been reformed to meet these economic changes.

According to current auditing course content in Libyan higher education, especially in relation to the materiality concept, the auditing syllabus has not been developed and there is still a lack of adequate topics regarding the materiality auditing issue (Misurata University
2012). Figure 3.2 shows a clear view of the theoretical framework according to materiality auditing and the audit expectation gap in Libya.

![Diagram](image)

**Figure 3.2: Theoretical Frameworks According to Materiality Auditing and the Audit Expectation Gap in Libya**

The above discussion explored whether there is a clear framework for the Libyan auditing profession, especially for materiality guidelines and standards. Previous Libyan accounting and auditing studies, national laws and regulations that related to the auditing profession and auditing education have been reviewed by this study in order to determine the gap in materiality auditing. In addition, to obtain empirical evidence, participants of this study were asked how they make their materiality decisions about an item or items in financial statements.

This chapter explored and identified a number of gaps in existing laws, guidelines and standards relating to materiality auditing. The findings indicate that neither Libyan laws
related to the Libyan accounting and auditing professions nor accounting and auditing education address the materiality concept.

3.4 Conclusion

This chapter has discussed the theoretical framework of materiality auditing based on the relationship between materiality auditing and the concept of the audit expectation gap, in general, and the Libyan case, in particular. This study has used agency and policeman theories to explain materiality auditing and the way that auditors should behave in order to provide material information.

According to the agency theory, the relationship between financial statement users and managers requires the provision of a clear view of financial statements in order to make decisions. This means that financial statement users need financial statements that include material information. Therefore, only materiality auditing can play a significant role in reducing the expectation gap between financial statement users and company managers, in terms of providing material information.

According to the policeman theory, financial statement user groups assume that auditors work as policemen to provide an absolute opinion that financial statements are free from all errors and fraud. However, the auditing profession has attempted to present its role as providing reasonable assurance to financial statement users, including material information. Thus, the difference between the policeman’s role and the reasonable assurance role has created an expectation gap between the audit profession and these users, relating specifically to the meaning of the material information.

Finally, this chapter has explored materiality auditing and the expectation gap in Libya, as a case study. The findings indicate that the audit expectation gap in Libya has resulted from an absence of clear materiality guidelines and standards in the Libyan laws and regulations. In addition, the LAAA has not played an important role in providing adequate guidelines for materiality auditing decisions. Accounting and auditing education has also suffered from unsuitable curriculum in a materiality auditing context.
Chapter 4: Libya and the Case Study in Context

4.1 Introduction

This chapter addresses both the historical and the current auditing situation in Libya. It aims to determine whether the present situation in Libya is appropriate for the implementation of the concepts and standards of the auditing profession. This chapter will identify the main challenges facing the auditing profession and its standards within Libya as a developing country.

This chapter is divided into four sections. The first section discusses the political situation. It presents Libya’s location, the main periods of Libya’s history and the effect of political policies on the national auditing profession. The second section discusses the economic environment in Libya. It compares the needs of the auditing profession before and after the discovery of oil reserves. The third section examines the social and educational situation and their effect on the profession. Finally, the fourth section summarises the effects of the current conditions in Libya on the national auditing profession.

4.2 The Political Situation

This section discusses Libya’s political history, and the aim of this discussion is to explore the effect of the political situation on the development of Libya’s auditing profession. There is no doubt that the long period of occupation of Libya had a negative effect on sectors such as the economy, professions and education. Further, the period of the Alqadafi\(^4\) regime (which lasted for more than four decades) witnessed an unsuitable business environment and a limitation on human rights, which negatively affected the development of several professions, including the national auditing profession.

As mentioned below, Libya is situated in an important area of the world. According to St John (2008a), Libya is located between three different spheres: Arabic, African and European, and the earliest settlements of people date back to 8,000 Before the Common Era

\(^4\)To the western world, Alqadafi was known as Gaddafi.
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(BCE) (Wallace and Wilkinson 2004). Libya has been occupied by numerous settlers throughout the long period of its history. The following sections outline the location of Libya, its main features and important historical periods.

4.2.1 The Location of Libya

Libya is a word that derives from the name of an ancient tribe (Libue), which existed for a long period in Northern Central Africa (St John 2008a). In terms of its location, Libya is situated on the central coast of North Africa with a Mediterranean coastline of close to 2,000 kilometres. It is bordered by the Mediterranean Sea to the north; Niger, Chad and Sudan to the south; Egypt and Sudan to the east and Algeria and Tunisia to the west. Libya possesses the fourth largest area in Africa, which is approximately 1,775,500 square kilometres with shared borders of approximately 4,348 kilometres. This includes Egypt at 1,115 km, Chad at 1,055 km, Algeria at 982 km, Tunisia at 459 km, Sudan at 383 km and Niger at 354 km. The highest percentage of Libya’s land is desert or deemed to be desert (Attir and Al-Azzabi 2004; Vandewalle 2012). Figure 4.1 shows the exact location of Libya.

Figure 4.1: Map of Libya
Topographically, Libya can be divided into three main regions: Tripolitania (northwest), Cyrenaica (northeast) and Fezzan (south) (Malcolm and Losleben 2004). Libya’s capital city is Tripoli, which is located on the North-West coast. Although most Libyan cities are located in the northern part of the state, there are some ancient and big cities in the southern part of Libya, such as Ghadames, Sabha and Murzuq.

Libya’s climate can be divided into two main types: the Mediterranean climate in the north and the Saharan climate in the south. Therefore, the average temperature range in the north is 7–18°C in winter and 22–37°C in summer. In the southern part of Libya, the average temperature range is 1–15°C in winter and 28–46°C in summer. The highest temperature recorded in Libya was 58°C in 1922. Mountain areas, such as the Green Mountains (Aljable Al-Akhdar), receive the most amount of rain and some light snow.

4.2.2 Before the Common Era (BCE)

The earliest waves of colonists arrived on Libya’s western coast by 1,000 BCE (Malcolm and Losleben 2004). According to Wallace and Wilkinson (2004), the Phoenicians (*Punicus* in Latin and *Vingean* in Arabic) came from the Eastern Mediterranean coasts as traders of goods such as gold and raw metals. However, Wallace and Wilkinson (2004) pointed out that, due to the increase of permanent settlements, the Phoenicians built many cities along the Western Libyan coast: Leptis Magna (present-day Lebdah or Alkhums), Sabratha and Oea (present-day Tripoli, the capital city of Libya). By 517 BCE, the Phoenicians completely dominated the North-Western African coasts.

The Greeks were the first settlers (631 BCE) to occupy the eastern part of Libya (Cyrenaica). Wallace and Wilkinson (2004) indicated that four ancient cities were established by the Greeks: Apollonia (present-day Susa), Barce (present-day Al-Marj), Teuchira (present-day Tolmeita) and Euesperides (present-day Banghazi, the second-largest city in Libya). In the southern part of Libya, in the fifth century BCE, the Garamantes built their own settlements and established their own capital city, which they named Garama (present-day, Jarma) at the location of what is now Fezzan. In addition, due to the increase in the population of the Garamantes people, they controlled the trade caravan routes between the North
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Mediterranean coasts and the Saharan countries of Africa. The Garamantes’ activities developed to meet their diverse needs.

By 75 BCE, the Romans came to Libya and expelled the Phoenicians from Libya’s northern coast. Moreover, the Romans fought Garamantes settlements until 70 Anno Domini (AD), when they signed a military and commercial treaty. Politically and economically, Libya was an important country to the Roman Empire. Leptis Magna (Lebdah or Alkhums) was one of the most important cities to the Roman Empire due to its geographical position opposite the coast of Rome. In addition, the political and economic relationship between the Romans and Libya’s northwest cities became closer when a Libyan emperor ruled Rome. According to Wallace and Wilkinson (2004), one of the Libyan people who was born in Leptis Magna (Septimius Severus) became an emperor of the Roman Empire in 193 AD.

4.2.3 The Rise of the Islamic Religion

In the seventh century AD, after the spread of the Islamic religion in Africa, the Islamic Empire (Khilafah) replaced the old empires, including the Roman Empire, and was accompanied by waves of Islamic migration (St John 2008a). Libya then became known as an Islamic country, where all of its citizens were Muslim. The Islamic laws (the Holy Qura’an, the sacred book of Muslims, and Sunnah, the sayings or doings of the prophet Muhammad) have been adopted as the political and economic policies of Libya.

At the beginning of the fourteenth century, Vandewalle (2012) stated that the Ottomans (Turkish people) established a strong empire by seizing countries in East Europe, Asia and North Africa. In 1551, the Ottoman militaries occupied Libya and that occupation continued until the beginning of the twentieth century (St John 2008a). In terms of the Ottoman policy in Libya, Anderson (1984) indicated that the Ottomans dominated Libya through the governor (Pasha), who was elected by the sultan of Turkey. Ahmed Karamanli, in 1711, was a famous Turkish governor in Libya who increased Libya’s state in the world (Ottoman Empire). However, by the mid-nineteenth century, significant changes to the Ottoman’s administration appeared in Libya. According to the new administration, Libya was divided into states (wilayah) and each state was then divided into local districts, which were ruled by a local governor (mutassarif) (Anderson 1984).
4.2.4 The Italian Invasion of Libya (1911–1945)

The Italian invasion of Libya began in the early twentieth century, in 1911. Wright (1981) stated that, due to reasons such as the importance of Libya’s location, the phenomenon of the occupation of North African countries by European nations and the weakness of the Ottoman Empire that ruled Libya at that period, Italy began its systemic occupation of Libya with foreign investments in the banking sector, agriculture and primary industry. Thus, Libya’s current modern infrastructure has been bequeathed by the Italian Government. In 1911, the Italian military attacked the northern cities of Libya. The Libyan people resisted the Italian invasion and fought for more than 35 years. Omar Al-Mukhtar led the struggle in Aljabal Al-Akhdar (Green Mountain, 200 km west of Benghazi). Consequently, the Italian military arrested more than 100,000 Libyan people and put them in concentration camps in Suluq (south of Benghazi) and Al-Aghela (west of Benghazi) in order to stop supplying the rebels (Wallace and Wilkinson 2004).

During the Italian colonisation, Libya was one of the theatres of the Second World War (WWII), from 1939 to 1941. By the end of WWII and due to the defeat of the Axis’ power, Libya was divided into two by the UK and France. According to Wright (1981), in the second half of the 1940s, British military administration controlled the main eastern cities, such as Benghazi and Tobruk, while the southern cities were under French administration. In addition, the US also had a military base in Libya (Wheelus Air Base).

4.2.5 The Independence of Libya

Throughout its history, Libya resisted occupation by foreign forces. Wallace and Wilkinson (2004) indicated that, although most colonialists only ruled Libya’s northern coasts, Libyan tribes fought all those colonists, including the Greeks and the Romans. According to a history of modern Libya, since the beginning of the Italian invasion, which dominated the state from 1911 to the eve of the 1950s, the Libyan population strongly resisted (Vandewalle 1998). In 1920, the Italian Government and some of the Eastern tribes in Libya negotiated to establish a local administration and supported Idris (Muhammed Idris Almahdi Alsnusi) as an Amir of Cyrenaica (the eastern part of Libya). However, Otman and Karlberg (2007) stated that, in 1927, agreement had been rescinded by the Libyan population because the Italian military government did not allow Libyan people to hold adequate political rights. During this period,
Ramadan Alsuayhli attempted to launch the Tripolitania Republic in the western part of Libya. According to Vandewalle (2012), the relationship between Libyan tribes (Arab and Amazige) became increasingly stronger in order to drive out the colonialists.

By 1945, the UK, France, the US and the Soviet Union disclosed their strategic interests in the countries of North Africa (St John 2008a). Therefore, the period between 1945 and the 1950s witnessed the rise in international debates about the Libyan situation because of its geographical position (Wright 1981). For these reasons, in 1949, the United Nation announced that Libya should become an independent country by the beginning of the 1950s. Blanchard (2009) stated that, on 24 December 1951, the United Nations voted for Libyan independence and Libya became an independent country under the name ‘The United Kingdom of Libya’ (Al-Mamlkah Al-Libihhah Al-Muttahida).

Idris was Libya’s first president after its independence and the Libyan constitution was launched in 1951 (Metz 2004). Accordingly, the country adopted federalism as a political system and the first parliamentary elections were held in February 1952. However, the president’s family and some tribes who were loyal to the president dominated Libya for many reasons. For example, the Libyan Government faced challenges such as a lack of adequate political experience and a lack of financial resources (Wright 1981; St John 2003). In addition, all Libyan political parties were banned after independence. St John (2008a, pp. 109–110) pointed out that:

> From 1951 to 1969, eleven prime ministers and over forty cabinets displayed an unexpected resilience in dealing with a succession of internal and external crisis. During this period, Libya experienced dramatic socioeconomic change even as it brought a certain precarious stability to the central Mediterranean.

At that time, Libya also suffered from a lack of the financial resources, so it was an extremely poor country.

The Libyan Government (under the Idris regime) sought to establish international relations in order to assist its political and economic systems. The UK and the US were two prominent countries that had a strong relationship with the United Kingdom of Libya at that time. In 1953, an agreement was signed between Libya and the UK, which allowed the UK to
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maintain military bases in Libya. These relations were supported by the discovery of oil in Libya in 1959.

4.2.6 The September Coup

On 1 September 1969, Alqadhai fi and his group of military officers seized power in Libya and overthrew the Libyan monarchy (Wallace and Wilkinson 2004). The group of military officers ruled Libya by forming the Revolutionary Command Council, which included 12 members, with Alqadhai fi as a leader. The existing ministries were replaced by the military officers and all former officers above and the rank of major were removed. However, members of the Revolutionary Command Council lacked political and economic experience (Alexander 1981). Consequently, many changes to government infrastructure occurred during the earliest years of the September Coup. At that time, Alqadhai fi held the most power within the Revolutionary Command Council. Although the officers indicated that they were for freedom in Libya, the activities of opposition political parties were prevented. In 1971, Alqadhai fi declared that Libya would become a republic and the popular congresses would be established to elect the country’s president, which led to a change in the name of the country from the United Kingdom of Libya to the Libyan Arab Republic (Vandewalle 1998).

Suddenly, in 1973, Alqadhai fi announced a new popular revolution, which led to the cancellation of all existing laws and changes to the previous administration. According to Vandewalle (1998), on 16 April 1973, he announced a popular revolution that was based on a five-stage programme. St John (2008a) pointed out that, in the early stages of the popular revolution, there were no new constitutions, laws or guidelines to organise the new situation. Therefore, after some months, Alqadhai fi attempted to give his revolution a theory and named it ‘The Third Universal Theory’ in order to establish new political and economic systems (Blanchard 2009). Politically, the theory aimed to solve the problem of democracy by giving all people the authority to elect public officials at all levels. In other words, popular committees (popular congresses) should be elected from all state areas and those committees should select the General People’s Congress, which represented the highest authority. By 1977, all state organisations, industrial units, institutions and universities were ruled by the revolutionary committees that had been elected by the popular congresses. Further, Alexander (1981) indicated that Alqadhai fi became president of Libya, imposing his will on the General People’s Congress (the highest authority) and represented Libya in international
conferences and festivals. He also held absolute power as commander of the armed forces and adopted the new title of Leader of the Revolution. He also changed Libya’s official name again, this time to ‘The Social People’s Libyan Arab Jamahiriya’ (Alexander 1981).

In the context of foreign policy, Alqadhaiﬁ attempted to embark on a significant campaign in the Middle East and Africa, beginning in the 1970s. Following this, the Union of Arab Republics was launched between Libya, Egypt and Syria on 17 April 1971; however, it was doomed to an early end. According to Cooley (1982), there were many reasons that led to the failure of the Union of Arab Republics. The countries involved were not ready to emerge as a union due to many internal issues and the ideologies of the presidents of those countries were fundamentally different. At that time, many crises emerged between Libya and its neighbours, as well as with other countries, because Alqadhaiﬁ only believed in his own ideology and used Libya’s financial resources to promote his own view outside of Libya (Wright 1981; Cooley 1982; St John 2002). Joffe (1981) also stated that, by the mid-1970s, the diplomatic relationship between Libya and its neighbours (Egypt, Sudan, Tunis and Chad) witnessed many crises. In 1977, Alqadhaiﬁ announced war on Egypt due to border disputes and the unity of the Arab nation. According to Wright (1989), the relationship between Libya and Chad degenerated during this time due to increasing border disputes (the Aozou strip) and Alqadhaiﬁ’s support of the opposition parties in Chad. Therefore, in the early 1980s, he announced war on Chad and sent the Libyan forces to intervene between the Chad Government and the opposition (Joffe 1981). However, Simons (2003) stated that the Western intervention (France and the US) in Chad lead to the withdrawal of the Libyan military after approximately 10,000 Libyan soldiers were killed.

In addition to the negative effect of Alqadhaiﬁ’s foreign policies on the Libyan economy, these policies led to Libya becoming internationally ostracised. By 1981, diplomatic relations between Libya and the US broke down and the Libyan embassy was closed by the Reagan administration. St John (2002) indicated that the US believed that Alqadhaiﬁ was actively supporting terrorism in the world; thus, in 1982, the US announced an embargo on Libyan oil. However, Vandewalle (2012) pointed out that the effect of the US sanction against Libya was not sufficient to prevent Alqadhaiﬁ supporting terrorism. Both the Europeans and the US were concerned about the support of terrorism by the Alqadhaiﬁ regime. Therefore, they sent a strong message to the Alqadhaiﬁ regime by bombing Libya in April 1986.
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4.2.7 The International Sanction on Libya (1992–2003)

Much has been written and reported about Libya’s foreign political crises due to Alqadhafi ideology (St John 2002; St John 2003; Ahmida 2009; Nmoma 2009; Vandewalle 2012). St John (2008a) stated that the Pan American World Airways flight No. 103, which exploded above Southern Scotland (Lockerbie) in 1988, was a major crisis between Libya and Western countries. Known also as the Lockerbie bombing, it led to the death of 270 people. All 270 (243 passengers, 16 crew members and 11 people on the ground) were killed by the explosion. The Lockerbie bombing was one of the most serious crises that emerged between the Alqadhafi regime and the United Nations during the 1990s. According to St John (2008a), on 14 November 1991, US and UK investigations indicated that the explosion was caused by two Libyan citizens. On 19 September 1989, the French Airplane UTA flight No. 772 was also destroyed over Niger in Western Africa. In September 1989, a French court found that the UTA flight was bombed by four Libyan citizens and, as a result, the French government launched international arrest warrants for the suspects. However, Alqadhafi refused to hand over the Lockerbie and UTA suspects and refused to cooperate with the investigations (St John 2002). Therefore, in April of 1992, the United Nations launched an international embargo of Libya (Security Council Resolutions No. 748 of 1992). It was extended until 2003, when Libya accepted a trial for the Libyan suspects of the Lockerbie bombing in a special court in the Netherlands under Scottish law (Ahmida 2009; Vandewalle 2012).

In early 2008, Blanchard (2009) pointed out that Alqadhafi moved towards a closer relationship with the Western world. Moreover, he promised to stop supporting terrorism and denied attempts to hold weapons of mass destruction. There were many reasons that led to changes in the foreign policies of the Alqadhafi regime, such as an end to the support of terrorism and the establishment of a warmer relationship with Western countries (Martinez 2006). According to Jentleson and Whytock (2006), the main reasons for the changes in Alqadhafi’s outlook were that he was worried about both Afghanistan and Iraq’s wars and of facing Saddam Hussein’s fate.

4.2.8 The Libyan Revolution on 17 February 2011

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February 2011 in Libya and 15 March 2011 in Syria (Dixon 2011; Kazamias 2011). The aim of these revolutions was to overthrow the ruling regimes and reform the corrupt economic and political systems.

Although Libya has a small population of about seven million and great natural resource reserves (oil and gas), the Libyan people have suffered from economic problems, such as high unemployment and inflation. More specifically, problems such as corruption, lack of public trust in politicians, the ban on free press and the poor supply of infrastructure were other causes of the revolution on 17 February 2011. In his survey about the issues that the Libyan people face, Schwab (2010) found that the five most troubling issues included corruption, an inefficient government bureaucracy, political instability, an inadequately educated workforce and an inadequate supply of infrastructure. In addition, Schwab (2010) and Central Intelligence Agency (2011) indicated further factors that led to the 2011 Libyan revolution, as showed in Table 4.1.

Table 4.1: The Main Factors that Contributed to the Libyan Revolution in 2011

<table>
<thead>
<tr>
<th>The factor</th>
<th>The rank or percentage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public trust of politicians</td>
<td>2.8 out of 7</td>
<td></td>
</tr>
<tr>
<td>The increase of the unemployment rate</td>
<td>30%</td>
<td>The 24th country of the world regarding to the highest unemployment rate</td>
</tr>
<tr>
<td>Transparency of government policy making</td>
<td>3 out of 7</td>
<td>One of the worst five countries in the world</td>
</tr>
<tr>
<td>Reliance on professional management</td>
<td>2.5 out of 7</td>
<td>The worst country in the world</td>
</tr>
<tr>
<td>Willingness to delegate authority</td>
<td>2.3 out of 7</td>
<td>The worst country in the world</td>
</tr>
<tr>
<td>Nature of competitive advantage</td>
<td>2.1 out of 7</td>
<td>The worst country in the world</td>
</tr>
</tbody>
</table>

Source: Schwab (2010) and Central Intelligence Agency (2011)
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The Libyan revolution started with peaceful demonstrations in Libya’s eastern cities (Banghazi, Al bayda and Toubraq) and then spread to all Libyan cities (Kazamias 2011). The main demands were to obtain broad political reforms (such as the development of a new constitution to ensure the effective participation of people), more civil rights for citizens, freedom to form political parties and freedom of the media. However, Alqadhafi refused the revolutionaries’ requests and used his military power to suppress the revolution violently, resulting in the death of thousands of people (The Economist Intelligence Unit 2011; The Institute for Security Studies 2011). Liu (2011) and Garwood-Gowers (2011) pointed out that Alqadhafi used foreign soldiers (mercenaries) from different countries to support his army in crushing the revolution.

On 26 February 2011, Resolution No. 1970 was the first reaction from the United Nations. The Security Council of the United Nations passed the resolution (under chapter seven of the United Nations Charter), which aimed to reduce the suppression of civilians. According to the resolution, the countries of the United Nations were required to freeze all foreign assets of members of the Alqadhafi regime and to enforce a no fly zone over Libya (Garwood-Gowers 2011). Less than a month later, on 17 March 2011, the Security Council of the United Nations announced Resolution No. 1973 of 2011 after the failure of all diplomatic avenues to halt the regime in killing its population and destroying the country (Fisher 2011). Resolution No. 1973 allowed the North Atlantic Treaty Organization to bomb the Alqadhafi forces that were attacking civilians.

Due to its political background, Libya did not have the right conditions for establishing a suitable business environment. In particular, Libya has witnessed two completely different political systems since its independence in 1951: the monarchy and the Alqadhafi regime. The rule of the monarchy suffered from a lack of financial resources, which led to reliance on foreign assistance and professional skills. The period of the Alqadhafi regime emerged as an unstable system with no fixed constitution, which negatively affected the national economic system. These negative effects included the absence of a clear policy to develop the national expert profession, including the auditing profession.
4.3 The Economic Environment

This section explores the economic structure, legal requirements and economic laws and regulations that were in place after the discovery of oil and the effect of these on the national auditing profession. It aims to show the characteristics of the Libyan economy in order to explore whether the auditing profession and its standards are appropriate for its economic environment. It will discuss the two main periods of economic development in Libya (the periods before and after the discovery of oil in 1959) and their requirements for the auditing profession.

4.3.1 The Economy Prior to the Discovery of Oil and Gas

Historically, Libya’s economic history can be divided into two main periods: before and after the discovery of oil (Vandewalle 1988). Not much has been written about the Libyan economy before the discovery of oil, as Libya was a poor country (Otman and Karlberg 2007). Anderson (1984) and Bribesh (2006) stated that the pre-oil period showed that Libya was one of the poorest countries in the world; its economy primarily depended on the caravan trade, agriculture, animal husbandry and handcraft industries as the main source of income. Anderson (1984) indicated that, due to Libya’s location on the north-central part of the African coast, Libyan cities, such as Tripoli, Fezzan, Ghadames and Ghat, were dependent on caravan trade across the African Sahara from the northern coasts of the Mediterranean Sea. This demonstrates that Libyan economic resources were primitive and inefficient.

In terms of employment, professions, laws and regulations that were related to the auditing profession, poor economic circumstances led to a poor standard of living and a lack of economic and social benefits, such as a skilled workforce, education and health.

During the reign of the Ottoman rule (1551–1911), the Ottoman Government found that Libya was a very poor country with various tribes. They were given broad freedom to manage their own affairs, as long as they did not actively participate in the political opposition. Further, the Ottoman Government applied income tax laws in many Libyan cities (Buzied 1998). According to Ahmida (2009), the Libyan people were required to pay
different types of income tax, such as taxes on agriculture and animals, under the Ottoman income tax.

During the Italian occupation (1911–1943), Libya witnessed the development of a national economy. St John (2008a, p. 81) indicated that ‘three decades of Italian rule left Libya with a considerable infrastructure of roads, agriculture villages and other public work but a poor legacy of a skilled, informed, and political active citizenry’. In 1923, the Italian occupation of Libya launched the first income tax law in order to organise the Libyan economic system (Ellabbar 2007).

By the mid-twentieth century and after WWII, the US and the UK worked to clarify their strategic positions in Middle-Eastern countries, such as Libya. Wright (1981) stated that, by 1945, foreign aid was one of Libya’s financial resources and came from the US and the UK. According to military agreements between Libya and both the US and the UK, they promised to support the Libyan budget with approximately $5 million annually. Before the discovery of oil and because of a scarcity in economic resources, there was a lack of high-level education and national experts, except for a few national professional bodies and local firms. Consequently, Libya depended heavily on foreign experts in different fields, including accounting and auditing, and the foreign professional bodies implemented their own professional standards (Mahmud 1997; Dardor 2009).

4.3.2 Economic Characteristics after the Discovery of Oil and Gas

Just as the discovery of oil led to radical changes in the economic situation in other countries, essential changes to the Libyan economy emerged from the discovery of oil and gas. This led to the second Libyan economic period, which started after this discovery. Since the discovery of vast oil and natural gas reserves in the mid-1950s, Libya has become a prosperous country. This section discusses Libya’s economic environment during the period of oil discovery from 1950 to 2011.

4.3.3 The Development of the Libyan Economy

Libya’s economic environment, after the discovery of oil, can be divided into two periods: before and after the September Coup in 1969.
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4.3.3.1 The Libyan Economic Situation from 1950 to 1969

Following Libyan independence in 1951 and the discovery of oil reserves, Libya became a member of the Organization of Petroleum Exporting Countries (in 1962) with one of the largest oil reserves in Africa (Cooley 1982). Mallakh (1969) indicated that Libya’s income from petroleum increased considerably from $40 million in 1962 to over $800 million in 1969, and Libya’s economic position shifted from a poor economy to one of the richest economies in the world, ranking 12th among petroleum producers. Therefore, in 1963, the first national development plan was established by the national government. According to Mallakh (1969), the developmental plan for Libya, which extended from 1963 to 1968, aimed to improve living standards and national resources, such as education, agriculture and industry. The plan was designed to meet the infrastructure and employment needs of the population. Thus, the best results from the development plan were an expansion of more than 3,000 km in roads and port facilities at many cities. Hershlag (1975) also compared the rate of growth and the ranking among 58 developing countries during the period between 1960 and 1965 and found that Libya occupied the first rank of the developing countries with a 33.5 per cent rate of growth.

Mahmud (1997) also indicated that, due to the discovery of oil in Libya, the gross domestic production (GDP) increased dramatically from $435 million to $4.5 billion. The developmental plan aimed to improve living standards, such as expenditure on infrastructure, which received approximately 30 per cent of the development budget. In addition, many national industries and companies were established. The discovery of oil drew many investments from foreign corporations, such as ExxonMobil, British Petroleum and Shell, which led to increase in employment rates.

At this stage, the Libyan economy followed the capitalist model due to its relationship with Western countries (Wright 1981). Ellabbar (2007) also stated that, during the period from independence (in 1959) to the September Coup (in 1969), Libya’s economic system emerged as a capitalist system with private ownership. However, Wright (1981) stated that Libya implemented a mixed economy (communalism and capitalism) until the mid-1970s because, although there were private businesses in the industrial and marketing sectors, other businesses, such as the education and health sectors, were ruled by the public sector.
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In the context of the auditing profession, an increased need for an accounting system and an auditing profession arose after the discovery of oil and the emergence of the oil industry. Dardor (2009) stated that, in 1953, Libyan commercial law was one of the first national laws concerned with the accounting and auditing professions. Dardor (2009) also pointed out that the Libyan commercial law regulated the presentation of financial statements and ensured all companies in Libya followed the law when preparing their financial statements. In 1955, the Libyan Petroleum Law was launched in order to organise the oil industry, along with its financial processes. Therefore, the accounting and auditing rules for oil activities came under the regulation of the oil and petroleum law. These laws (the Libyan Commercial Law and the Libyan Petroleum Law) required all companies to be registered in order to maintain proper accounting records and prepare annual audited financial statements. However, these laws and regulations did not explain the specific accounting and auditing standards that should be followed by Libyan accountants and auditors (Ahmad and Gao 2004; Dardor 2009).

4.3.3.2 The Libyan Economic Situation after 1969 (September Coup)

Following the September Coup in 1969, the Libyan economy shifted from a semi-capitalist system to a social-communist system (Blanchard 2009). According to Alqadhafi’s philosophy, all previous economic theories failed to solve the world’s economic problems. He presented his philosophy as the third universal theory, which replaced both the capitalist theory (the Western theory) and the communist theory (the Soviet Union theory). He argued that only his theory (the third universal theory) could provide solutions for world economic problems. According to St John (2008a) and Vandewalle (2012), Alqadhafi stated that all the financial resources of the country should be shared by the country’s citizens under government control.

Consequently, a new system of administration was established by the Alqadhafi Government. All service industries, companies and educational organisations were operated by popular committees (a group that was elected by employees). Accordingly, the popular committees replaced the professional expert managers. Vandewalle (1998, p. 108) stated that ‘only the banking system and oil-related industries were, once more, saved from these popular take-overs’. However, several studies and reports (Anderson 1982; Vandewalle 1998; The Libyan Group for Transparency 2010) pointed out that, by the 1980s, the popular committees (public
administration) had seized all of the state’s previous Libyan administration activities in order to implement the Alqadhafi ideology (socialism system).

### 4.3.4 The Structure of the Libyan Economy

As in many other developing countries, Libya’s economy has only recently emerged as an official economy (since the 1970s). As discussed above, before the discovery of oil, Libya’s economy depended primarily on revenues from primitive agriculture and foreign aid. However, that situation changed significantly following the discovery of oil, with different economic sectors emerging. Typically, the structure of Libya’s economy can be divided into four sectors.

#### 4.3.4.1 The Industry Sector

Libya’s industry sector has witnessed different stages of development. Clarke and Bowen-Jones (1981) indicated that, before the discovery of oil, the Libyan industrial sector was mainly based on agriculture, animals and products like olive oil, milk and craft industries, such as woodwork and carpet-making. Clarke and Bowen-Jones (1981, pp. 253–254) stated that ‘according to a 1956 industrial census, there were 3121 industrial establishments in Libya, 87 per cent of which were small-size establishments employing less than 10 workers’. Since the discovery of oil in 1959, the industrial sector (e.g., oil and gas, cement, iron and steel, food and fishing) has grown dramatically and more attention has been paid by the government, especially in the oil sector.

#### 4.3.4.1.1 The Oil and Gas Industry Sector

Since the discovery of oil in 1959, the Libyan Government has attempted to develop and encourage this industry, including the exploration, production, transport and marketing of oil and gas products. Due to this, the Libyan economy has become greatly dependent on oil revenue. In the earliest stages of oil discovery, there was a lack of national expertise and skill, such as exploration, production, development and accounting. Thus, international companies from the US and the UK entered Libya to operate the Libyan oil and gas sector until the mid-1970s (Mahmud 1997). Due to this, the Libyan Government attempted to develop its national human resources by increasing training programmes. According to Waddams (1980), in
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March 1970, the government established the National Oil Corporation of Libya (NOC). The NOC aimed to organise and develop a national oil industry to replace foreign experts with national skills by developing a plan of employment, education and training in the oil industry. The NOC planned to place Libyan employees in all positions of the oil industry, including the administration, accounts, production and services.

In September 1973, the Libyan Government launched the law of the nationalisation of the oil sector and bought majority shares in most of the oil processes, with at least 51 per cent of crude production. By 1975, the Libyan Government nationalised many UK and US companies, such as the British Petroleum Company. In addition, Libya established the big three petroleum industrial cities: Marsa Albrega, Abu Khammash and Ras Lanuf, which included petrochemical factories and petroleum ports (Wright 1981). The main products of the Libyan petrochemical industries are urea, ammonia and methanol from Marsa Albrega and ethylene, propylene and benzene from Ras Lanuf. In addition, ethylene dichloride, polyviny chloride and vinyl chloride monomer are produced by the Abu Kammash petrochemical complex.

Currently, the Libyan oil and gas sectors are the main energy sources for the needs of many countries. The US Energy Information Administration (2011) indicated that, according to the estimations in January 2011, the Libyan proven reserve of oil is estimated at approximately 47 billion barrels, while the proven reserves of natural gas are more than 54 trillion cubic feet. Thus, according to Elbeydi et al. (2010), EU countries, particularly Italy, Germany, Spain and France, have imported approximately 84 per cent of their oil and gas from Libya. Table 4.2 shows a brief overview of the Libyan oil and gas sectors.
Table 4.2: Libyan Oil and Gas Sectors

<table>
<thead>
<tr>
<th>The Sector</th>
<th>Oil</th>
<th>Natural Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proven reserves</td>
<td>47 billion barrels (in 2011)</td>
<td>55 trillion cubic feet (in 2011)</td>
</tr>
<tr>
<td>Production</td>
<td>1.8 million barrels per day (in 2010)</td>
<td>562 billion cubic feet (in 2009)</td>
</tr>
<tr>
<td>Exportation</td>
<td>1.5 million barrels per day (in 2010)</td>
<td>349 billion cubic feet (in 2009)</td>
</tr>
<tr>
<td>National consumption</td>
<td>270,000 barrels per day (in 2010)</td>
<td>212 billion cubic feet (in 2009)</td>
</tr>
<tr>
<td>Major oil terminals</td>
<td>El Sidra, Marsa Albrega, Ras Lanuf, Tobruk, Alzawiya, Alzuetina</td>
<td></td>
</tr>
</tbody>
</table>

Source: US Energy Information Administration (2011)

4.3.4.1.2 The Non-Oil and Gas Industry Sector

Libya’s non-oil industry can be characterised as part of the public sector and as lightly capitalised. This sector mainly consists of cement, tobacco, iron and steel, processed foods, soft drink, textiles and fishing, which support 29 per cent of the Libyan workforce (Malcolm and Losleben 2004). Following the discovery of oil, one of the government’s major efforts was to improve the construction industry in order to play a role in economic and social development. By the end of the 1970s, many cement factories were established to fulfil the state’s needs. According to Otman and Karlberg (2007), during the 1970s, Libya launched a development plan to establish cement factories in many areas, including Suk Alkhamis, Alkhums, Zliten and Benghazi. The Suk Alkhamis complex for cement (located in Alkhums town, approximately 120 km east of Tripoli) began production in 1977 with a production capacity of one million tonnes annually. The tobacco industry is the earliest Libyan industry in the public sector and emerged in the early 1970s with a capital of five million Libyan
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Dinars (LYD) (eBiz Studies 2006). The tobacco industry completely relies on the national harvest of tobacco and it employs more than 1,500 people.

In terms of the mineral industry, the early 1990s saw an emphasis towards Libyan heavy industry. In 1990, the first attempt to create a heavy industry began with the iron and steel complex at Misurata (east of Tripoli) as the nucleus of the industry. Libya’s steel industry is supplied by the raw material of crude iron by the strip mines in Wadi Ashati (in the southern part of the state). According to Terterov (2004), Wadi Ashati is one of the largest strip mines of crude iron in the world. Preliminary estimates indicated that the area contains more than one billion tonnes of crude iron. The main products of the Libyan steel industry are equipment for the building of houses, drums and steel pipes.

The nutrition industry has also been presented as a business activity within the Libyan economy. Although this type of industry is still in its primitive stages, it has been known for some time in Libya (before the discovery of oil and gas). It includes products such as olive oil, fishing and fruit. The Libyan nutrition industry was developed after shifting to economic privatisation at the end of the 1990s. Foreign investment has increased in the nutrition industry; for example, three big companies have invested in the fishing sector: Libyan Italian Company, Libyan Spanish Company and Libyan Tunisian Company (International Business Publications 2003).

4.3.4.2 The Financial Sector

Before the independence of Libya, the financial sector was operated by foreign companies from countries such as Italy and the UK. The banking sector emerged as the main component of the Libyan financial system and all commercial insurance activities were covered by international insurance companies. However, by the 1980s, a Libyan financial system was established that included a banking sector, national insurance companies, investment companies, a social security fund and a stock exchange (Gait 2009). The next sub-sections will present specific details about the financial sector in Libya.
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4.3.4.2.1 The Banking Sector

In 1956, Libya established the National Bank of Libya, which changed its name to the Central Bank of Libya, in order to create its banking system. According to Gait (2009), the Central Bank of Libya has the following duties and responsibilities:

1) organising financial issues, such as issuing and controlling currency and banknotes
2) governing monetary policies and controlling transactions within Libya and abroad
3) managing the official reserves of gold and foreign exchange
4) supervising all nationalised banks to ensure the soundness of their financial position
5) managing and issuing all state loans

The structure of the Libyan banking sector includes three types of banks: commercial, specialised and foreign. The Libyan banking sector consists of 16 commercial banks (e.g., the Commercial National Bank, Al-Ahli Bank, Al-Wahda Bank, Al-Gumhouria Bank, Al-Ummah Bank and Al-Sahara Bank) and three specialised banks (the Agriculture Bank, Commerce and Development Bank and Saving and Real Estate Investment Bank). As central policies were implemented in the Libyan economy, the state controlled all banking activities (Central Bank of Libya 2012).

The commercial banks provide services for customers (individuals and companies), including payment of individual salaries through current accounts, loans and letters of credit for imports. The role of specialised banks is to assist in the development of specific sectors, such as loans to people engaged in agriculture or loans for the building of residential houses (Buferna 2005).

By the early 1990s, radical changes in the Libyan banking sector emerged due to the change to Libyan economic policies from the public to the private sector. Gait (2009) indicated that the Libyan Government approved Banking Law No. 1 of 1993 for the establishment of a private banking sector and to permit international banks to open branches or agencies in Libya. According to these changes, private banks started working in the banking sector. These included the Aman Bank, the Aljmae Bank and the Al-Wafa Bank. There are also foreign branches of international banks that work in Libya, such as the Qatar National Bank, UBAE Arab Italian Bank, the Bank of Valletta and the British Arab Commercial Bank (Private Banking 2011).
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4.3.4.2.2 The Insurance Sector

Prior to the September Coup in 1969, the insurance sector was operated by national and foreign insurance corporations, which covered insurance areas such as car, fire and life (Buferna 2005). The Libyan Insurance Company represents one of the first national insurance companies. It was established in 1964 with a capital of 100,000 LYD (Libyan Insurance Company 2011). The company provided all types of insurance, including car, marine, travel and health insurances. However, after 1969 and due to changes to the state’s attitude towards nationalisation to control and govern business activities, the insurance industry, as with all other Libyan industries at that time, was nationalised by the government. Metz (2004) indicated that, at the end of 1970, the government asked the national insurance companies to share 60 per cent of their stocks and, by 1971, it totally controlled the national insurance companies.

This situation (state-owned insurance) continued until the 1990s when Libya began to move from a socialist-economic ideology towards a capitalist ideology. In accordance with the reformation of the Libyan economy in the banking and insurance sectors, the government launched Law No. 102 of 1994 (Otman and Karlberg 2007). The law allowed the banking and insurance sectors to establish private companies. Consequently, many private insurance companies emerged, including Muttahida Insurance Libya, Trust Insurance Company, Sahara Insurance Company, Libo Insurance Libya and Takaful Cooperative Insurance Libya.

4.3.4.2.3 The Foreign Exchange and Financial Services Company

In accordance with new Libyan economic policies, the Libyan Government confirmed Law No. 611 of 1994 to establish the Foreign Exchange and Financial Services Company with a capital of seven million LYD. The shareholders of the company consisted of Al-Sahara Bank, Al-Wahda Bank, Al-Gumhouria Bank, Al-Ummah Bank, Commercial National Bank, Libyan Arab Foreign Bank and Libyan Arab Foreign Investment Company (14.29 per cent each). The aim of the company is to provide financial services that include sale and purchase of foreign currency, internal and external transfer of money, investment services and financial brokerage (Foreign Exchange and Financial Services Company 2011). The company held membership for the Union of Arab Banks in 1996 and the Union of Traders in Financial Markets in 2002.
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4.3.4.2.4 The Social Security Fund

The Libyan social security fund system (social welfare) was established in 1957 and its laws and regulation were reformed in 1980, 1987 and 1998 (Metz 2004; Social Security Fund 2011). The aim of the system is to provide national financing of social security by implementing a comprehensive social security system throughout the state. The laws of the social security fund intend to achieve the following main objectives:

- ensure the basic needs of all Libyan residents who are no longer able to work, including old-age pensioners and those with disabilities, by providing a steady income
- refund the contribution of employers of foreign companies

The social security fund also provides urgent assistance in the following cases:

- persons who work for themselves in the event of temporary disabilities, such as sickness and accidents
- expectant mothers from the fourth month until the confinement
- relief grants in cases of disaster or emergency. (Social Security Fund 2011)

According to the Social Security Fund (2011) and Social Security Programs throughout the World (2011), funding of the Libyan social security fund consists of monthly payments from the following sources:

- contributions of the employee’s insurance of 3.75 per cent of salary
- contributions of the self-employer’s insurance of 15.175 per cent of declared income
- contributions of foreign employers of 11.25 per cent of salary
- contributions of the government of 0.75 per cent of annual earnings.

4.3.4.2.5 Libyan Investment Corporations

This sector discusses Libya’s internal and external investment companies that are controlled by the government. Table 4.3 presents the main Libyan investment corporations.
### Table 4.3: Libyan Investment Corporations

<table>
<thead>
<tr>
<th>The Company</th>
<th>The Number of Law and Date of Establishment</th>
<th>The Capital</th>
<th>Some of the Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>The National Investment Company (NIC)</td>
<td>Law No. 1 of 1986</td>
<td>100 million LYD</td>
<td>*Subscription in the shares of other companies</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*Investing in the financing of productive and service companies</td>
</tr>
<tr>
<td>The Libyan Arab Foreign Investment Company (LAFICO)</td>
<td>Law No. 6 of 1981</td>
<td>500 million LYD</td>
<td>*Investing Libyan funds outside of the state</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*Providing loans to other countries</td>
</tr>
<tr>
<td>The Libyan Arab African Investment Company (LAAICO)</td>
<td>Law No. 660 of 1990</td>
<td>100 million LYD</td>
<td>*Promoting inter-African trade</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*Integrating African countries’ economies</td>
</tr>
</tbody>
</table>

Source: Libyan Arab African Investment Company (2011); Libyan Arab Foreign Investment Company (2011); National Investment Company (2011)

#### 4.3.4.2.6 The Libyan Stock Market

As previously mentioned, Libya’s economic policies have witnessed a significant movement from the comprehensive state socialism to the private sector since the beginning of the twenty-first century. The establishment of the Libyan stock market was one of the Libyan Government’s plans to move the public sector to an evolving private sector (Masoud 2009). In his study, ‘Libya’s Economic Reform Programme and the Case for a Stock Market’, Masoud (2009) indicated that, by 2000, the Libyan Government had passed many laws and regulations in order to reform the economic sector and establish the private sector. Therefore,
in the context of the privatisation programme, the Libyan Government passed Resolution No. 134 of 2006 to establish the Libyan Stock Market (LSM) as a corporation, with a capitalisation of 20 million LYD ($16.2 million) (Otman and Karlberg 2007). The economic functions of the LSM were to assist the privatisation programme of the Libyan economy by selling public companies and providing financial sources for new private companies. LSM regulations determined the market membership, which included banks, insurance companies, subscribed companies and financial funds. Due to the early stage of the privatisation programme in Libya, in 2008, only seven companies were listed by LSM with a capitalisation of 1.2 billion LYD with a contribution with 1.4 per cent of GDP (International Monetary Fund 2008).

4.3.4.3 The Agriculture Sector

Libya’s agricultural activities have existed throughout its history. Simons (1993) stated that, during the period before the discovery of oil, the farming sector was the main employer of workers in Libya and, as a result, was self-sufficient in food production. Libya’s main agricultural products are olive oil (more than three million olive trees), wheat, barley, dates and animal products (Simons 1993; Azzabi 2000). However, as with many African countries that have a desert climate in most parts of the country, water shortage is the main issue that challenges Libya’s agricultural activities. A high percentage of agricultural activity has depended on dams with a capacity of 686 million cubic metres. According to Azzabi (2000), despite estimates indicating that the area suitable for farming activities in Libya is approximately 2.2 million hectares, the current groundwater resources provide only 13 per cent (approximately 293,000 hectares) of that area. For this reason, statistics indicated that, in 2010, the agricultural contribution to the GDP was small (approximately three per cent) and it supports approximately 17 per cent of the Libyan workforce (Central Intelligence Agency 2011).

4.3.4.4 The Tourism Sector

Libya’s geographic location is an area with an ancient history, so Libya has many tourist sites of great antiquity (Mattingly et al. 2006; Lonely Planet 2011). Along the Mediterranean coastline (approximately 2,000 km) lie the remains of ancient Phoenician, Roman and Greek cities. According to Otman and Karlberg (2007), in 1985, five Libyan places were declared
world heritages sites: Leptis Magna (present-day Lebdah), Cyrene (present-day Shahat), Sabratha, Ghadames and the Tadrart Acacus mountains, by the United Nations Educational, Scientific and Cultural Organization. For example, Leptis Magna (Lebdah or Alkhums, 120 km east of Tripoli) has been known as one of the most ancient cities on the Northern Mediterranean coast since the tenth century BCE. Wallace and Wilkinson (2004) stated that Leptis Magna has a very rich history, having been settled by the Phoenicians (in the tenth century), the Romans (in the first century AD), the Byzantines (in the fifth century AD) and the Muslims (in the seventh century AD). Due to Libya’s geographic location as the northern gate of Africa, much of it is dominated by the huge Sahara desert with its ancient oases and distinctive cultures. Therefore, Libya’s tourism sector, with its wealth of archaeological resources and nature, could become a significant financial source for the Libyan economy.

However, previous studies (Wallace 2004; Alfergani 2010; Jones 2010; Khalifa 2010) have indicated that tourism in Libya is still an unknown industry for international tourists and, as a result, it suffers from poor productivity. Undoubtedly, the main reason for this is the effect of political policies within the Alqadhafi regime, which alienated the rest of the world (Wallace 2004; Jones 2010). In addition, many other factors emerged and caused weakness in the Libyan tourism sector. These are as follows:

- the concentration of economic policies on the oil resources as the main financial resource
- the absence of laws and regulations to encourage the sector and the absence of national tourism development plans
- the lack of experience in dealing with international tourism companies (Alfergani 2010).

Economically, Libya had implemented significant steps towards the encouragement of the tourism industry by the early twenty-first century. Otman and Karlberg (2007) pointed out that, in the context of Libyan tourism, the government passed Law No. 7 of 2004 and established the Tourist Development Board. The law aimed to organise Libya’s tourism industry, encourage national and international investors to invest in the tourism sector and reduce dependence on the oil sector. Consequently, the sector has gradually developed during the middle of the first decade of the twenty-first century. According to Jones (2010), in 2009, the contribution of Libya’s tourism industry reached 8.6 per cent of GDP ($7.7 billion) and it
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supported 8.8 per cent of the Libyan workforce (159,000 jobs). The above statistics show that Libya’s tourism industry has adequate resources and it can play a significant role as an important financial resource in Libya.

4.3.5 The Libyan Economy and Privatisation

The private sector has been part of Libyan economic policies since the beginning of economic activities in Libya (Maghr 2004). However, as the above discussion of the political context shows, after the Alqadhafi coup in 1969, Libya adopted a socialist ideology (state-owned economy). The government gradually tightened its control over all business activities and then all the private economic activities were abolished. That situation existed until the beginning of the twenty-first century witnessed the end of the socialist experiment as changes to the Libyan economy emerged.

Beginning in 2000, the government announced private policies in order to shift some economic activities into the private sector and achieve urgent economic reforms. The privatisation of some of the state’s sectors emerged as the solutions to the Libyan economic problems. According to Vandewalle (1998), Metz (2004), St John (2008b), and Alafi and Bruijn (2010), the government believed that its previous economic policies (socialism) failed and there was a need to shift towards the private sector in order to solve some problems. Vandewalle (2012, p. 183) indicated that ‘in June 2003, Alqadhafi admitted the country’s public sector had failed and should be abolished, and called in addition for privatisation of the country’s oil sector’. The above studies concluded that the socialist economy of Libya failed due to a number of factors, including:

1. failure to develop resources in the economy that could replace oil resources
2. absence of the rule of law in the decision making
3. absence of efficient management
4. lack of transparency in managerial levels
5. instability of administrative systems
6. increase of corruption in state committees.

Another major reason for moving towards privatisation was the demands from international economic agencies and corporations such as the World Trade Organization (Alafi and Bruijn 2010).
By 2003, the private-ownership concept (in Arabic Altamlik) emerged as an acceptable private concept through the governmental economic regulations of Libya. According to Alfergani (2010), the privatisation processes of the Libyan economy have been followed by many laws and regulations in order to encourage private economic activities. The progress and framework of the privatisation process have been outlined in Table 4.4.

**Table 4.4: The Progress of Laws and Frameworks of the Libyan Privatisation Program**

<table>
<thead>
<tr>
<th>The Law</th>
<th>The objectives</th>
<th>The result</th>
</tr>
</thead>
</table>
| Law No. 198 of 2000 | *Performing studies about the state’s economic units in order for transfer ownership.  
* Evaluating the companies targeted for the privatisation. | The establishment of the General Board of Ownership Transfer (GBOT). |
| Law No. 31 of 2003  | Determining the public economic units that will be transferred to the privatisation program. | Naming of 360 state-owned enterprises for privatisation. |
| Law No. 138 of 2004 | Determining the foreign investment’s fields to set up investment projects in industry, agriculture, health and services fields. | 10 international companies invested in Libya with a capital of LYD 88 million. |
| Law No. 134 of 2006 | *Providing a suitable environment for the privatisation program.  
* Allowing all the companies for the investment. | The establishment of Libyan Stock Market (LSM). |
| Law No. 89 of 2009  | Amending the Law No. 198 of 2000 to find a professional body for the private sector. | The establishment of the Privatisation and Investment Board (PIB). |
| Law No. 9 of 2010    | Amending the Law No. 5 to:  
* Investments of national and foreign capitals  
* To find and diversify the economic sources. | The contribution of the investment reached 34.88% of GDP. |

Sources: Alfergani (2010), Economy Watch (2010), and Libyan General People’s Congress (2010).
The above table shows the new economic policies that have been implemented by the Libyan Government in order to move towards the private sector. However, unstable political and economic policies have hampered Libya’s privatisation program. In his study ‘Libya: Reforming the Impossible?’, Alison (2006) indicated that economic reforms could not achieve their objectives without both the political and economic systems. For example, Alison (2006) stated that the economic reformers have faced many challenges from the people who were close to the Alqadhafi regime such as the members of Revolutionary Command Council. The main reason was that those people (the Alqadhafi group) believed that the reformed political and economic system of Libya would reduce their own benefits. Moreover, Otman and Karlberg (2007) and Vandewalle (2012) investigated the lessons of the failed reforms of the Libyan economy and stated that before the privatisation programs begin, the Libyan Government should create a suitable business environment including high-level governmental support, professional bodies of privatisation and high levels of education.

4.4 The Social Environment

The social environment concept presents the characteristics of the population, culture, their lifestyle and their levels of education (Hofstede 1984). The social environment conditions (e.g., population, culture and education) are very important factors in any research because they have strong influences on the implementation of several kinds of research, in particular in the social studies such as auditing studies (Sherif 2010). This section aims to explore the nature of Libya’s social and cultural environment in order to explain their impacts on the professions of auditing. This section will deal with the demographics of Libya that explain social life such as the population density, culture, religion and education.

4.4.1 The Population

Despite Libya possessing a huge area, which covers approximately 1.8 million square kilometres, the whole country has a small population of only about 6,597,960 (Central Intelligence Agency 2011). The country has a unique mix of local and foreign cultures due to its location in the centre North Africa, being situated on the Mediterranean Sea and opposite the southern countries of Europe. According to Oxford Business Group (2010), the structure of the Libyan population consists of different ethnic groups in which Arabs make up the large
Chapter 4: Libya and the Case Study in Context

majority of the population. The Arabs began migrating to Libya in the seventh century. Moreover, there are other Libyan ethnic groups including Amazige (Berber), Tuareg, Tebu and a mixture of the ancient settlers of Libya (Greeks, Romans, Turks and Italians). The social structure of Libya heavily relies on the tribal (clan) system thus; it can be noted that Libyan surnames always refer to tribal names.

The Amazigh tribes are the ancient people who have lived in Libya since pre-historic times. Many studies claim that there are a group of people in Libya who are named Berber or Amazigh. However, there is confusion among common concepts between the Berber and Amazigh terms. The terms ‘Berber’ and ‘Amazigh’ have come to be used by many studies to indicate Amazigh tribes. Malcolm and Losleben (2004) and Phoenician International Research Centre (2011) pointed out that the term ‘Berber’ (from the Latin word ‘Barbarous’) was named by the Greeks and Romans and it referred to all Libyan people who did not speak the Roman language. In addition, the word ‘Amazigh’ (‘free humans’ in the Amazigh language), refers to the ancient people who have lived in Libya for thousands of years (Phoenician International Research Centre 2011).

4.4.2 The Language and Religion

Although Arabic is Libya’s official language, some local tribes speak their own languages that are completely different. DiPiazza (2005) indicated that the Amazigh tribes used to speak their own language (the Berber language) while the local language of the Tuareg (a tribe in Southern Libya) is the Tamasheq language (one of the Saharan languages of Africa). Older generations also speak the Italian language due to the Italian occupation between 1911 and 1951, while the younger generations have an interest in the English language.

The religion of Libya is Islam. The sources of Islamic law are the Holy Quran, the Sunnah and the consensus of Islamic scholars (Islamic Way 2011). The Islamic religion has discussed all aspects of the human life such as social, economic and political lives and it has launched their required guidelines (Nasr 2003). In the context of the economic field, gambling (Maysir in Arabic) and usury or interest (Riba) are prohibited by Islamic laws. In contrast, one of the strongest pillars of Islam is prescribed charity (Zakah). According to Islamic rules, all Muslims who possess, at the end of the year, an amount equal to or more than 85 grams of pure gold are required to donate 2.5 per cent of their wealth (Shawish 2011). Moreover, it
should be noted that the Zakah in Islam is neither a government tax nor a voluntary contribution; rather, it is a duty of the Islamic religion.

The Zakah of the Islamic system aims to achieve some following social and economic objectives:

1. training people to be sympathetic and compassionate towards the poor and needy
2. establishing social security connecting different socio-economic classes and groups
3. reducing poverty and ensuring equality by making it obligatory for rich people to share some of their wealth with the needy.

4.4.3 The Culture and Education

Libya has immense cultural wealth due to its long history. Lonely Planet (2011) stated that Libyan traditions and culture can be divided into three main kinds, which are based on geographical area: western, eastern and southern culture. As a result, every area has its own private traditions of celebrations, clothes and food. Turkish and Italian influence can also be found in Libyan culture. However, the family lifestyle of all Libyans is very similar due to the impact of Islamic traditions on the social life of Libya. Elfathly and Palmer (1980) stated that the social structure of Libya depends primarily upon the family, clan and tribe.

Traditionally, in Libyan families, the father or the oldest son is the authority figure and daughters should keep their families’ names after marriage. The Islamic religion has given women the right to discuss and decide social issues with men. Libyan civil and economic laws have offered women many legal rights to undertake business activities and to vote in elections (World Trade Press 2010). The social structure has played a significant role in the political and economic systems of Libya (Alison 2006; Lonely Planet 2011). Metz (2004) indicated that in many cases, obtaining high positions in the Libyan administration relied on the family’s name.

The ninth month of the Islamic calendar is named Ramadan, which the best month for Libyans as an Islamic country. According to the Islamic religion, during the month of Ramadan, all adult Muslims (except for those with particular medical cases, e.g., pregnancy and old age) have to fast (must abstain from food, drinking, smoking and sexual activities)
from sunrise to sunset (Islamic Way 2011). Further, business activities such as selling food and clothes, and social visiting increase sharply during the month of Ramadan.

In Libya, there are two big festivities, Eid Alfitr and Eid Aladha. Eid Alfitr marks the end of the month of Ramadan while Eid Aladha starts on tenth of the last month of the Islamic year. During those festivities, Libyans celebrate at least three days with vacations for schools and governmental offices and the observances of those events buying new clothes and toys for children, preparing many kinds of food, and visiting relatives and friends. Additionally, several ancient Libyan cities have their own traditional festivals; such as the Kabaw festival in April, the Ghadames festival in October and the Ghat festival in December. They organise annually their festivals of folklore with the celebration of traditional cultures (World Trade Press 2010).

Libya’s beautiful beach provides a great variety of enjoyable opportunities with all types of sea sports. Horse races take place in the western and eastern parts of the country where many horse riding schools have been established in order to provide classes including training horses for jumping and racing. Camel races are also held in the southern part of Libya (Azema 2000). Football (soccer) is the nation’s favourite sport.

In relation to education, the structure of Libya’s educational system consists of three main stages: primary and intermediate (basic and mandatory stages); secondary; and higher level of education (technical and training institutes and universities). Before the discovery of oil in Libya, the educational situation, like in many poor countries, suffered from limited financial resources that affected other Libyan sectors. This situation completely changed significantly after discovery of oil. Libya has since concentrated on developing its education system in order to provide high levels of education and professional skills to its citizens. eBiz Studies (2006) indicated that education has become a mandatory for all students’ ages between six and 15 years old. eBiz Studies (2006) also stated that currently, Libya has the highest literacy rate of most developing countries, approximately 97 per cent of the adult population. In addition, according to Otman and Karlberg (2007) and the General People’s Committee for Education (2008), the number of schools has increased from 218 with 32,741 students in the 1970s to 4,502 with 1,196,469 students in 2008. Moreover, the ratio of students per teacher at the basic education level has been reduced from 25 in 1969 to eight in 2008.
DiPiazza (2005, p. 45) argued that in Libya, ‘all levels of education, including colleges, are free of charge’. However, this fact was true before the 1990s and the period of the beginning of the privatisation program in Libya. By 1990, the private education sector emerged in addition to the public education sector, which consequently led to a fee-based private education system (Oxford Business Group 2010). Several studies (General People’s Committee for Education 2008; Twati 2008) stated that Libya’s education system has faced many challenges such as within the administration and technology infrastructure. Further, a political factor has affected negatively Libya’s educational environment. According to Metz (2004), in 1980, the Alqadhaﬁ philosophy and the military training courses became the main part of the syllabus of secondary schools and higher education.

In relation to auditing education, from the past until now, in both middle and high levels of education, the Libyan institutions and universities have offered degrees in different areas including accounting, economics and management. However, in the accounting department, there are no more than two courses of auditing subjects that are related to the Western context. This has led to an insufficient auditing background for students and thus for the auditing profession in Libya (Mahmud 1997).

Table 4.5 summarises the impacts of Libya’s situation on the auditing profession.
Table 4.5: The Impacts of Libyan Environment on the Auditing Profession

<table>
<thead>
<tr>
<th>The period</th>
<th>Political environment</th>
<th>Economic environment</th>
<th>Social environment</th>
<th>The auditing situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before independence</td>
<td>*The country was under foreign control such as Britain and American administrations.</td>
<td>*There were limited financial resources and primitive business activities. *Simple industrial sector was operated by local agriculture products.</td>
<td>Illiteracy was widespread.</td>
<td>*There were no national laws to organise the national auditing activities. *There were simple needs for an auditing system. *British, Americans and French were responsible for auditing.</td>
</tr>
<tr>
<td>The first period of Alqadhai coup from 1969 to 1990</td>
<td>*Announcing popular revolution. * Cancelling all the existing laws and regulations. *Revolutionary Command Council ruled the state. *Changing name of the state to Libyan Arab Jamahiriya.</td>
<td>*Socialist policies and centralised control of virtually all economic resources. *The economic relation with the Western countries was reduced by Alqadhai policy.</td>
<td>*Several restrictions on the rights to freedom of expression. *The regime produced its own media and publications.</td>
<td>*Establishing the new auditing standards. *Despite the signing of agreements between Libya and Western countries for auditing activities. *The auditing system needed to be familiar with the economic processes (macroeconomics).</td>
</tr>
</tbody>
</table>
### Chapter 4: Libya and the Case Study in Context

<table>
<thead>
<tr>
<th>The period</th>
<th>Political environment</th>
<th>Economic environment</th>
<th>Social environment</th>
<th>The auditing situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The second period of Alqadhafi</td>
<td>* A significant sign of change in the political arena.</td>
<td>* The Libya economy suffered from international sanctions.</td>
<td>* Increase in demands to apply the Islamic rules of the accounting system.</td>
<td>* The establishment of the Control and Follow-up Control and Follow-up Control over the state’s sectors.</td>
</tr>
<tr>
<td>regime from 1990 to 2003</td>
<td></td>
<td>* Dramatic decline in the economic growth of the state.</td>
<td></td>
<td>* The private auditing services sector of the state is established.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Increase of the corruption.</td>
<td></td>
<td>* Pricewaterhouse and Coopers became the first international auditing companies of Libya.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Attempts to reform the economic system.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>* The establishment of the General Board of Ownership Transfer in 2000.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The last period of Alqadhafi</td>
<td>* Lifting of the international sanction on Libya in 2003</td>
<td>* Libya announced its intention to move towards privatisation.</td>
<td>* There were no education programs to prepare the public about the need for privatisation.</td>
<td>* Increase in number of qualified and experienced auditors.</td>
</tr>
<tr>
<td>regime</td>
<td>* Libya signed the agreement on the Weapons of Mass Destruction.</td>
<td>* The government launched many laws and regulations for the privatisation program.</td>
<td></td>
<td>* Issuing the first auditing standards and practices.</td>
</tr>
</tbody>
</table>

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4.5 Conclusion

The intended aim of this chapter was to provide an overview of Libyan political and economic history in order to allow an understanding of the key factors influencing the local auditing profession. Libya witnessed and suffered from different political periods and systems (occupation, monarchy, republic and socialism) that led to an unstable environment to develop its systems such as the economy, education and the professions. Consequently, like other expert professions, the auditing profession in Libya has suffered from an unstable base to present and develop its goals. More specifically, as a result of the political environment, the auditing profession could not establish its own efficient bodies and issue standards. There were no constitution, laws, and regulations that were launched to organise the national auditing profession. From an economic perspective, changes to the Libyan economic system have impacted negatively on the auditing profession. In terms of social impact on the Libyan auditing profession, the educational system, especially in relation to the auditing degrees, suffered from the absence of adequate education.
Chapter 5: Research Methodology

5.1 Introduction

The previous chapter explored Libya’s history to the present day including the political environment, economic development and its structure and social conditions to explain their impacts on Libyan auditing issues and the current auditing environment in Libya.

This chapter will describe the research methodology that has been employed in this research. This involves a review of what has been written about the research methodology as it relates to this study, followed by a precise discussion of the methodology that has been used by the researcher. In achieving the above research aim, it is necessary to accentuate the main objectives of the research and use an efficient method to identify the research characteristics and requirements.

The following investigative issues are designed to achieve the main objective of this study, that is, to explore the materiality issue of the auditing in Libya:

1. Libyan auditors’ attitude towards materiality auditing
2. quantitative forms and factors that have been used to make materiality decisions
3. qualitative factors that have been used to make materiality decisions
4. extent of the impact of quantitative and qualitative factors on materiality decisions and the necessary separation between them.

The importance of the methodology chapter derives from the impact of the research methodology on the research quality and then research results. Thus, this chapter concentrates on the main methodology issues of the research to justify the choice of research design, approach, sample and the reasons behind the choices made. In addition, in considering the components of research methodology, it is important to have an understanding of the basic terms and concepts related to research methodology.
5.1.1 Definition of Research Methodology

By reviewing several academic articles, papers, books and studies, it can be noted that there is some confusion between the terms ‘research method’ and ‘research methodology’. Method and methodology have been referred to by numerous academic studies. In the broadest meaning of the term, ‘research methodology’ refers to the methods that have been followed by the researchers during the processes of their research. However, Jankowicz (2005), Giddings (2006) and Adams et al. (2007) indicated that there is an obvious difference between the terms ‘method’ and ‘methodology’. According to Jankowicz (2005), the term ‘methodology’ consists of the research design or research approach that has been adopted by the researcher, while ‘method’ addresses the research design and a brief description of the main research techniques. To understand the research methodology adopted in this research, concepts of research should be explained, such as the meaning and types of research that have resulted in this study’s approach to research methodology.

5.1.2 The Meaning of the Word ‘Research’

In general, the word ‘research’ refers to all the processes employed to find information about causes, effects or solution for the questions, issues or problems to be addressed (Bryman and Bell 2011).

In terms of audit research, the auditing field like other sciences has been researched as a specific area, such as the development of the auditing profession (Gendron and Bédard 2001). However, in his study ‘Audit research—The needs and resources of professional firms’, Stacy (1982) pointed out that the need for more audit research have arisen due to the impacts of internal and external requirements of the auditing profession. Stacy (1982) concluded that audit research requires three main objectives including establishing and maintaining existing standards; the adaptation of the external changes that affect the clients; and the development of new audit techniques. A recent study by Curtis et al. (2009) stated that although the development of information systems and technology has increased, little research has been conducted about the impact of the business environment on the auditing profession. Therefore, it can be said that changes in business environment raise questions for investigation such as further materiality auditing research. Future research should focus the relationship between the materiality auditing concept and the recent changes in the business
environment such as the rapid increase of financial transactions, the increase of technology use and environmental and social accounting.

5.2 Research Structure

Despite the differences between research regarding the research area and the type of research, the essential structure of research should consist of the main elements including literature review, research question, research methodology, and research design and type. Those elements will be discussed briefly in the following sections.

5.2.2 Literature Review

At the beginning of the research, the researcher should undertake a literature review that will explain the previous studies on the research topic. The aims of the review of the related literature are designed to show the similarities and differences between the previous studies and the present studies, which relate to the same issue (Paler-Calmorin and Calmorin 2008). Further, the researchers should compare the past and present context related to the research topic in order to explain any changes of the environment that may affect the findings of the current study (Kumar 2011).

In this study, the literature review about materiality auditing has been presented. The findings from previous research (Ahmad and Gao 2004; Abuzied 2006; Alfirjani 2006) about materiality auditing indicated that although the topic has been investigated since 1930s, the need for future studies has also increased due to several important reasons:

1. Almost all auditing materiality research has been written in developed countries.
2. The lack of materiality auditing studies in the developing countries mean they accepted the studies from developed countries in spite of the differences in the business environment.
3. The dramatic changes in the global business environment have led to changes in audit methodology (St John 2008b).
4. There is a need to determine or redefine some important terms such as auditing responsibility and social and environmental disclosure, which are related to materiality issue.
5.2.3 Research Problem

Research problems could emerge from different sources such as a criticism of the theoretical or practical situation, the particular business environment and the gap in the previous studies (Kothari 2004). For instance, the problem can be formulated to determine the relationship between phenomena and its variables or the factors that affect the effectiveness of models in some fields. Determining, defining and formulation of the research problems are the first and most important processes of any study. However, at the first stage of the chosen research problem, the problem might only be a vague outline. Therefore, following the literature review, the researcher should formulate the research problem as a specific question or questions (Kothari 2004). Walliman (2006) defined the research problem as a statement that can express the research issues. In other words, the research problems should be formulated in a specific question or questions to determine the main issue of the research. As the research problem is one of the most important parts of the research to explain the need for research, the research problem should have certain characteristics such as a validity and reasonability. Consequently, the research problem should be a clear statement and must contribute to importance of the problem and its contribution to knowledge in the field.

In this thesis, the research problem has derived from the absence of the local research relating to the materiality auditing issue and an urgent need for exploring that issue in order to develop national auditing profession as well providing a valuable contribution to the auditing literature. The following section formulates the research problem/question, sub-questions and hypotheses.

5.2.4 Research Question, Sub-Questions and Hypotheses

A research problem (question) might consist of many different factors or variables. Walliman (2006) indicated that the research question can be expressed in various forms such as sub-questions (a series of questions), hypotheses, or a mix of both sub-questions and hypotheses. Consequently, the aim of dividing the research question into sub-questions and hypotheses is to obtain the solutions to sub-questions and then a comprehensive answer to the research problem. However, Walliman (2006) pointed out that there are conditions to divide the main research question into sub-questions including the ability of the problem to be split into
different clear aspects and whether the problem needs to be measured by different scales (e.g., quantitative and qualitative factors).

The sub-questions and hypotheses must have certain important characteristics including the clarity, specification and testability. According to Paler-Calmorin and Calmorin (2008), the sub-questions and hypotheses refer to specific statements of predictions that describe what and how to go about addressing a research problem. Kothari (2004) also pointed out that hypotheses must have the main characteristics including clarity, determining the relationship between variables and the capability of being measured. In addition, the research problem can be formulated by two kinds of hypotheses; the alternative hypothesis that the researcher wants to be approved and the null hypothesis that the researcher wants to be disapproved (Kothari 2004). The hypotheses are defined as specific statements that could describe and address the research problem (Sachdeva 2009). In addition, Sachdeva (2009) stated that the functions of the hypotheses are to guide the aims of the research, determine the aspects that are relevant to the research and assist to establish a framework for the research.

In this study, the research problem has been formulated through the main following question:

**What are the main issues of materiality auditing in Libya from the perspective of the Libyan external auditors?**

In addition, the research question will deal with diverse main aspects of materiality auditing in Libya (awareness, sources and quantitative and qualitative factors); therefore, the question has been divided into sub-questions (SQs) regarding those main aspects of the materiality auditing. Those sub-questions have also been addressed by the research hypotheses as follows.

5.2.4.1 Whether the Libyan External Auditors Concern the Materiality Auditing Issue

The level of awareness of the materiality auditing issue is one of the most important components regarding materiality auditing research because it extends the importance of this topic from a view of the target group. In addition, this part can justify the reasons for the research. Therefore, the following sub-questions will explore the main issues related to that awareness.
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SQ1: To what extent do the Libyan external auditors agree or disagree about the difficulty, importance and responsibility of the materiality auditing concept?

This specific sub-question will be operationalised in the form of the following hypotheses:

**H01a:** There is no agreement between the Libyan external auditors that the concept of materiality is a difficult issue during the audit processes.

**H01b:** There is no agreement between the Libyan external auditors that the concept of materiality is an important issue during the audit processes.

**H01c:** There is no agreement between the Libyan external auditors that the concept of materiality is a responsible issue during the audit processes.

SQ2: Do you think it is necessary in your work (as an external auditor) to have guidelines for making materiality auditing decisions?

This question aims to support the results from sub-question 1 and ensure that the participants understood the questions about the materiality auditing issue.

SQ 3: Does your office/firm have or follow any professional guidelines or benchmarks for making materiality decisions?

The above question will be operationalised in the form of the following hypothesis:

**H02:** There are no guidelines or benchmarks have been followed by the Libyan external auditors for making materiality decisions.

The next two sub-questions investigate the sources of materiality guidelines and the body that should have responsibility to issue these guidelines.

SQ4: Could you please determine the sources of guidelines and benchmarks in Libya?

This question was asked to explore the sources of materiality auditing guidelines.

SQ5: Who do you think should be responsible for issuing the materiality benchmarks in Libya?
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As the Libyan auditing profession is a national auditing professions in a developing country that might be affected by the international accounting and auditing standards, the next sub-question explores the benefits of those standards.

SQ 6: To what extent do you agree or disagree that the international guidelines and benchmarks of materiality auditing are beneficial for making materiality auditing decisions in Libya?

The above sub-question was addressed by the following hypothesis:

\[ H_03: \text{There is no agreement that international guidelines and benchmarks are non-beneficial for making decisions to Libyan external auditors in their materiality decisions.} \]

In addition, in order to explore the factors that might make the international standards non-beneficial for making materiality auditing decisions in Libya, the participants were asked:

SQ7: Please rank the following factors that make international accounting and auditing standards non-beneficial to Libyan auditors (From 1 = most important to 5 = less important).

5.2.4.2 The Libyan External Auditors’ Attitudes during their Materiality Auditing Decisions

This section includes a group of the sub-questions that explore the aspects (user groups of the financial statements, type of the financial statements and the information in the financial statements) that have been focused by the Libyan external auditors in their materiality decisions.

SQ8: Which user groups do you consider as the primary user groups in your assessment of materiality decisions? (the government and its agencies, tax authority, owners and managers, investors or others) Please rank the groups according to the primary user groups of your decisions. (From 1 = most important to 5 = less important).

\[ H_04: \text{There are no significant differences between the Libyan external auditors about ranking of user groups of the financial statements during assessment of materiality decisions.} \]
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SQ9: To what extent in your materiality decision do you place importance on following statements? (Balance sheet, income statements, cash flow statement or notes to the financial statements).

H05: There are no differences of the importance between the financial statements used by the Libyan external auditors during their assessment of materiality decisions.

SQ10: To what extent do you find that the financial statements published by companies in Libya, provide adequate information for your materiality decisions (regarding the information’s time: past, present and future)?

H06: There are no differences between the adequacy of past, present and future information in the financial statements from perspective of the Libyan external auditors.

5.2.4.3 The Important Quantitative Forms, Factors and Qualitative Factors From the View of the Libyan External Auditors in Their Materiality Decisions

This part of the research justifies the need for auditing research in Libya regarding the materiality concept by exploring the quantitative and qualitative materiality factors that have been used by the Libyan auditors. Thus, this part has been investigated by the following sub-questions and their hypotheses.

SQ11: What form do you think should quantitative factors of materiality take in order to provide adequate information in your materiality decisions (the absolute value of the item or items being audited, the item’s position in the financial statement, a percentage of the item or items being audited or others)?

H07: There are no differences between quantitative forms regarding the adequacy of information from perspective of the Libyan external auditors in their materiality decisions.

SQ12: If you agree with ‘The absolute value of the item(s) being audited’ as adequate materiality auditing form, could you please indicate what would be the proper amount? (LYD 1,000, more than 1,000 and up to LYD 5,000, more than 5,000 and up to LYD 10,000, more than 10,000 and up to LYD 50,000, more than LYD 50,000 or other amount)
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SQ13: If you agree with ‘The item’s position in the financial statements’ as adequate materiality form, would you please indicate to what extent do you agree that the following items (cash, bank balance, total value of inventories, market value of inventories, net value of fixed assets, amount of intangible assets, total assets, total value of loans and long-term liabilities, stockholder equity, issued capital, revenue of the ordinary activity, revenue of extraordinary activity, total expenditures, total profits, net income, and accumulated depreciation for each item of fixed assets) affect your decision on materiality?

**H08**: There are no differences between the effects of items’ positions in the financial statements (as an adequate form) on the materiality auditing decisions.

SQ14: If you agree with ‘A percentage of the item or items being audited’ as adequate form, would you please indicate to what extent do you agree or disagree with the nine options of percentages of different items as appropriate form of the quantitative materiality and then if you either agree or strongly agree please indicate what would be the proper value of the percentage (five or ten per cent)?

**H09**: There are no differences between percentages of the relevant items as adequate form of the quantitative materiality factors that are adopted by the Libyan external auditors.

5.2.4.4 The Qualitative Materiality Auditing in Libya

Recent auditing research indicates that the qualitative materiality factors need to be more concentrated (Manitaa et al. 2011). Thus, different statistical analyses are used to explore the awareness of the Libyan external auditors towards the qualitative materiality factors.

SQ15: To what extent do you agree the existing qualitative factors affect decisions on materiality auditing?

**H10**: There are no different effects between the qualitative factors with regard to materiality auditing decisions from view of the Libyan external auditors.

5.2.4.5 The Association between the Quantitative and Qualitative Materiality Auditing Factors

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The last part of the study aims to explore a new area of the auditing research, whether there are different impacts of quantitative and qualitative factors on the materiality auditing decisions. In addition, the study explores the necessity to separate these factors during materiality auditing decisions.

SQ16: In your opinion, which factors (quantitative or qualitative) have strong impacts on the materiality auditing decision? Why?

\textit{H11: There is no significant difference between impacts of the quantitative and qualitative factors on the materiality auditing decisions.}

SQ17: Do you think it is necessary to separate quantitative and qualitative factors for materiality auditing decisions?

\textit{H12: There is no necessary to separate the quantitative and qualitative factors for materiality auditing decisions.}

5.3 Research Design and Research Type

An appropriate research design is an essential issue in order to ensure the validity of the research outcomes. According to Dhawan (2010), research design is the explanation of the research’s processes including the period of research time. Thus, the researchers should concentrate on the time during their research processes. It is obvious that the research design is an important step and that it includes research type, time of research, data collection, measurement tools and statistical techniques.
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5.3.1 The Type of Research

This section presents the types of the research in order to understand the research type that has been adopted in this study.

Many studies have discussed and explained the types of research. The research type has been classified in several ways including the knowledge field, nature of research problem and the research purpose. Broadly speaking, the research can be classified based on the type of data collection (quantitative, qualitative or mixed factors) or the dealing with a problem (exploratory, descriptive or causal research). Catane (2000) divided the research types into three main groups and these groups are based on inquiry, purpose and method. Therefore, according to type of the research data, it can be said that there are three types of research: quantitative, qualitative and mixed-method research.

5.3.1.1 Quantitative Research

Mouton and Marais (1988) indicated that the phrase ‘quantitative research’ refers to research that is concerned with the collection and analysis of data in numeric type (numbers and statistics). The term ‘quantitative research’ also refers to the nature of the research, which relies primarily on numerical data. Kothari (2004) defined quantitative research as research that is based on numerical data. Kothari (2004) provided a concise definition of quantitative research as a type of research that relies on the measurement of quantity or amount. According to the Kothari’s (2004) definition, the factors or variables of this type of research only consist of numbers or statistics. In short, quantitative research has been generated because all the research data (factors or variables) consists of numbers and statistics that can be collected by questionnaires (Creswell 2009).

5.3.1.2 Qualitative Research

The qualitative paradigm has emerged to deal with the problems (questions and hypotheses), which include qualitative data (Mouton and Marais 1988). According to Malterud (2001), qualitative research has been used to address and solve social work problems that require exploring the concepts using the researchers’ experience. Yin (2011) also indicated that the qualitative approach has been accepted by several academic researchers in different areas
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including business, education and health. In qualitative research, the research data can be collected by the interviews and other secondary data (e.g., documents and records).

5.3.1.3 Mixed-Method Research

The mixed-method approach is a type of research that combines both quantitative and qualitative approaches to research methodology. Mixed-method research (sometimes known as triangulate research) was first addressed in the mid-twentieth century by Campbell and Fisk (Mathison 1988). Tashakkori (2006), Creswell (2009) and Hussein 2009 indicated that using quantitative and qualitative approaches for the same research problem is referred to as mixed-method research.

5.3.1.4 Justification of Using Quantitative Research in this Study

According to the type of data in this research, the quantitative approach has been adopted. The major aim of this research is to explore the materiality issues including its concept, legal requirements, resources and materiality factors (quantitative and qualitative) from the perspective of external auditors in Libya. Therefore, in this study, the quantitative approach will achieve the following goals: a) data collection is relatively less time consuming; b) data collection is valid; and c) research findings can be easily generalised (Smith 1983; Sechrest and Sidani 1995; Taylor 2005).

5.3.2 Purpose of Research

All research should have a specific purpose that explains the reason why the research was conducted. The classification of research according to their purposes can be referred to as having three main types; exploratory, descriptive and causal (Malhotra et al. 2006).

5.3.2.1 Exploratory Research

The main objective of exploratory research is to provide adequate knowledge of the research problems when little information has been known or investigated. This means that this type of research aims to gather primitive data and information that will assist to define the
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research problem and suggest its hypotheses. Mouton and Marais (1988) explain the main objectives of exploratory research are:

1. defining the main concepts of the problem
2. discovering new aspects of the problem
3. undertaking a preliminary research before the causal and modelling research
4. providing preliminary background for future research that is related to the problem.

Although some studies argued that exploratory research cannot be used with quantitative methods of research, Royer and Zarowski (2001) pointed out that this type of research could be used to explain statistical analysis such as descriptive analysis and linear regression of variance. Thus, exploratory research can explain and analyse qualitative data by quantitative methods.

5.3.2.2 Descriptive Research

Following exploratory research, descriptive research has emerged to describe the data and characteristics that result from previous studies. According to Sevilla et al. (1992), the descriptive method has been used to characterise systematically the nature of a problem as it exists during the period of the research. Catane (2000) defined descriptive research as a type of research that aims to show the specific characteristics of the research population in order to address the problem. In other words, researchers gather and analyse data and information about current existing questions in order to solve the research problem. This type of research can be applied by quantitative, qualitative or mixed-method approach.

To sum up, following the above discussion about descriptive research, this type of research has relied on exploratory research in order to grant a particular description to the research problem.

5.3.2.3 Causal Research

Causal research is the third type of research that is determined by the research purpose. This type of research aims to analyse the causes and effects of the research problem.
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The causality concept is defined as the relationship between the independent and dependent variables of the problem. For example, if one independent variable has been changed, the researcher should observe change in the other dependent variables (Jha 2008).

5.3.2.4 Justification of Using Exploratory Approach in this Study

In line with the purpose of research, this study adopted the exploratory approach. This research type is an obvious example for the research that aims to investigate different aspects of a phenomenon (materiality auditing in Libya) and therefore it should apply the exploratory approach. The reason is that this research will deal with the concept of a materiality audit and its issues and factors (quantitative and qualitative) that affect an external auditor’s assessment of materiality in Libya. Therefore, the research has to collect and investigate two types of data, which was exclusively collected using a questionnaire.

Malhotra et al. (2006, p. 106) pointed out the main advantages of using exploratory research:
1. to obtain some background information where absolutely nothing is known about the problem area
2. to define problem areas fully and formulate hypotheses for further investigation and/or quantification.

5.4 Measurement Tools and Scales

Following the determination of the research question and approach, the researchers must determine the tools of data collection and measurement. Some researchers might face difficulties in determining and selecting their measurement tools and scales in order to obtain and analyse research data.

5.4.1 The Main Types of the Measurements Tools in Business Research

There are diverse types of measurements that rely on the aim and nature of the research (Axinn and Pearce 2006). Questionnaires, interviews, observations and the experiments are classified as types of research measurement (Kothari 2004; Jha 2008).
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5.4.1.1. Questionnaires

In many research areas, questionnaires are the most common and important method of data collection. Oppenheim (2000) stated that effective questionnaires must have special criteria that can provide an adequate quality of the questions in order to obtain research data. Reliability and validity are required by this method of data collection in order to obtain precise data. According to Collins and Hussey (2003), the reliability of the questionnaire requires that the same questionnaire can be applied by other researchers and obtain the same results while the validity consider whether all research objectives are measured by the questionnaire. Kothari (2004) and Panneerselvam (2004) stated that researchers must pay more attention to research wording. For instance, researchers should use simple and clear concepts in order to avoid any acronyms jargon and technical terms. In addition, the questions should lead to specific answers.

Hair Jr et al. (2003) indicated that the questionnaire design is one of the most important stages of the business research. Thus, according to Hair Jr et al. (2003), the researcher must be familiar with the five main steps of the questionnaire design, which include initial consideration, clarification of the concepts, typology of a questionnaire, pre-testing a questionnaire and administering a questionnaire. Phillips and Stawarski (2008) also investigated the steps of questionnaire design and they pointed out that the researchers should follow the four main steps of questionnaire design. These four steps include determining the specific information, selecting the research participants, selecting the type of questions and pre-testing the questionnaire.

In a nutshell, although the questionnaire has a long history, more recent studies (Connaway and Powell 2010; Hair Jr et al. 2011; Bernard 2011; Kumar 2011; Bryman and Bell 2011) have been concerned with the questionnaires classification and the effective questionnaire as one of the most important methods of data collection.

5.4.1.2 Interviews

The second type of method of data collection is the interview. A simple definition of the interview method of data collection is that it is a method to gather data by asking participants orally. Catane (2000) defined the interview method as a type of data collection that can
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achieve the research aim for the purpose of obtaining relevant information in order to address a research problem. Kothari (2004) and Panneerselvam (2004) defined the interview as the one of the methods that provides primary data to researchers. They also divided the interview method into two types—personal interviews and telephone interviews—and investigated the advantages and disadvantages of both types. They stated that the personal and telephone interview methods have some advantages and disadvantages. For example, the researchers can explain the meanings of some questions using the personal interview method. However, this might be more expensive, especially when participants are from distant areas. A telephone interview might be cheaper and faster than other methods of data collection but this method may not allow adequate time especially where explanatory answers are required to some questions. Adams et al. (2007) stated that the interview is an effective method to collect qualitative data and it can be divided into two types: face-to-face and telephone method. However, Adams et al. (2007) also supported the view that the interview as a data-collection method consumes a lot of time and results in a small research sample.

5.4.1.3 Measurement Tool in this Study (the Questionnaire)

A questionnaire will be adopted in this study as the research measurement in order to obtain the research data. In this research, the questionnaire is a precise method for collecting primary data due to practical reasons including location and type of the research sample. The research sample is located over a wide geographical area. Additionally, the research sample consists of Libyan external auditors; therefore, all the participants have the same characteristics.

Kumar (2011) compared the choice between questionnaire and interview as a method of data collection and he stated that if the research sample is located in a wide geographical area and there are no fundamental variations inside the sample, the questionnaire can be an effective method of data collection.

In terms of the structural questionnaire, according to Hair Jr et al. (2011), the questionnaire should contain three main sections: an initial section that presents the research concepts and their importance from the participants’ view; a middle section that presents the direct specific questions at the research topic; and a final section that includes questions in order to better understand the results.
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Therefore, the questionnaire of this research has been divided into six parts as follows.

Part one of the questionnaire aims to explore the overall picture of the auditors’ overviews regarding the materiality auditing issues in Libya. Eight questions were posed to explore the following materiality auditing issues including the meaning of materiality auditing from the perspectives of the Libyan external auditors, the degree of understanding importance and a responsibility about the materiality concept by Libyan auditors, whether it is necessary for Libyan auditors to have obvious guidelines for the materiality concept, and whether the international accounting and auditing standards have played a significant role in the Libyan auditing system with regard to the materiality concept.

Part two explores aspects that have been considered to assess materiality decisions by the Libyan auditors so that seven questions were asked about those issues.

Part three discusses the quantitative forms and factors that affect materiality decisions. Four questions were designed to determine the precise form that quantitative factors of the materiality audit should take including an absolute value, the item’s position in the financial statement and the percentage of the item being audited. Additionally, the fifth question is an open question to explore whether the Libyan external auditors use other quantitative factors for materiality decisions.

Part four presents the qualitative factors that affect materiality decisions. The first question investigates 22 qualitative factors of a materiality audit from the literature. In addition, new qualitative factors have been examined for the first time such as the turnover of the accountants in the company, the technology situation, the social and cultural influences and the gender of preparers of financial statements. The second question is an open question to investigate whether Libyan external auditors use other qualitative factors in the materiality audit.

Part five of the questionnaire investigates the relationship between quantitative and qualitative factors that affect materiality auditing decisions including the impacts on the materiality auditing decision and the ability to separate quantitative from qualitative factors.
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Part six is the last part of the questionnaire, which aims to obtain personal information about the participants related to the auditing profession. According to the researcher’s supervisory team, the respondents may feel tired due to the number of pages and questions contained in the questionnaire. Therefore, questions regarding the personal information have been placed in the last part of the questionnaire. Thus, the respondents will pay more attention to the early parts of the questionnaire, which include the most important questions related to the research problem.

In the sixth part, seven questions were employed to address the participants’ personal information on the following aspects: gender, highest educational qualification, place of obtaining the qualification, any other professional qualifications, the organisation where the respondents is employed, years of working as an external auditor, and specific experience as a specialist external auditor.

Moreover, to achieve the comprehensive understanding about the materiality auditing in Libya, at the end of the questionnaire, the researcher provided a section for further comments and suggestions from the participants in order to gain extra information regarding the research problem.

In terms of the design of the questionnaire, the researcher used three types of questions: open, closed and multiple choice questions. The aim of open questions is to allow participants to express the answers in their own experience while the closed questions aim to obtain specific responses.

5.4.1.3.1 Translation of the Questionnaire

The original version of the questionnaire was written in English; however, Arabic is a local language in Libya. Therefore, the researcher translated the questionnaire into the Arabic language. In addition, this translation has been checked by an official translation agent in Libya (see Appendix D) as well by some English-speaking lecturers at different universities in Libya.
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5.4.1.3.2 Development and Pilot Testing Questionnaire

To achieve the aims of the questionnaire as the method of selecting primary data of this study, the researcher employed a pilot study (pre-testing the questionnaire on a small number of the research population). Dörnyei and Taguchi (2010) stated that before the final version of the questionnaire is established, a pilot study for testing the questionnaire gives the researcher a good opportunity to address the main weaknesses in the questionnaire such as a lack of the information that is required and a misunderstanding of some questions by the respondents. In addition, the pilot study allows the researcher to decide the time that is needed to distribute and collect the questionnaires. Dörnyei and Taguchi (2010) also stated that a number of problems have emerged from the lack of time given to the participants. The feedback of the pilot studies can improve the quality of the questionnaires and additionally, it contributes to increase in response rates.

Some researchers expect that they should do a pilot study only once. However, in some cases, researcher may need to repeat the pilot study multiple times if some problems have been emerged (Connaway and Powell 2010).

5.4.1.3.2.1 The First Pilot Study

In this study, an initial draft of the questionnaire based on the existing literature and the researcher’s experience was designed. The first draft of the questionnaire was discussed with the researcher’s supervisors. Then, the first pilot study of the questionnaire was emailed to 10 Libyan postgraduate students (PhD students, some of whom have worked as an external auditor in Libya) at Australian Universities (Victoria, Griffith, Queensland) and at University of UiTM in Malaysia.

Several positive observations and comments were received (with first pre-test of the questionnaire), which led to the adding, restructuring, rephrasing and reforming a number of questions as the following:
1. Adding question number 1 in the first part of the questionnaire.
2. Restructuring question number 2 in the first part of the questionnaire.
3. Rephrasing question number 7 in the second part of the questionnaire.
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4. Reforming question number 8 in the first part and questions number 1 and 3 in the second part to be as ranking questions.

5.4.1.3.2.2 The Second Pilot Study

Following the first pilot study, the second pre-test of the questionnaire was conducted in Libya. In this research, the sample of the second pilot study consisted of six participants from the Libyan Accountants and Auditors Association (one auditor from the Ras Lanuf, an oil and gas company) and five participants from academic staff in the accountancy department in Almerghib University (where the researcher worked as a lecturer). The Arabic version of the questionnaire (which was revised after the first pilot study) was emailed to the sample of the second pre-test’s participants. Feedback from the second pilot study of the questionnaire indicated that the second version of the questionnaire had met the research purpose and it was comprehensively understandable and capable of obtaining information from the participants. A copy of the final version of the questionnaire has been attached in Appendix C.

5.4.2 Scale

In order to determine the type of research scales, researchers should define what they want to measure. According to the types of data, there are two types of scales, metric and non-metric (Hair Jr et al. 2003). Metric scales include summated rating scale, numerical scales, semantic differential and graphic rating while non-metric scales include categorical scales, rank order, sorting, and constant sum and paired comparison.

In terms of social and business research, investigators often need to use attitudinal scales in order to measure the attitude of participants towards research question. Kumar (2011) indicated that to measure the attitude of respondents Likert, or Thurston and Guttman scales (also known as cumulative scaling) can be used.

5.4.2.1 The Scales Used in this Study

To measure the participants’ opinions, this research used appropriate metric scales including cumulative index and Likert scales (with five points). The reasons for choosing these scales
are that these scales provide adequate reliability as well as a full understanding (Kothari 2004; Bernard 2011).

5.5 Research Sample

This section on the research sample is about understanding the meaning, types and size of the sample. In many types of research, it may be difficult to investigate and examine the research population due to reasons such as the geographical, temporal and economic restrictions. According to Connaway and Powell (2010), a sample is one or more than one group of a population. Thus, sampling is the method or strategy of selecting a sample or samples in order to determine the wider characteristics of a population.

Many studies have argued the need for selecting a research sample instead of investigating all the research population. Coldwell and Herbest (2004) listed five reasons that lead to selecting a sample including costs, timelines, population size, ability to obtain some items and accuracy. Krysik and Finn (2010) supported Coldwell and Herbest’s study and they stated that the main reason for using a sample instead of an entire research population is to save money and time. However, Krysik and Finn (2010) suggested that researchers must concern themselves with the following six steps in order to select a research sample: a) determine the research population; b) choose between the examining the entire populations or a sample, c) construct a quality sampling frame; d) decide between probability and non-probability sampling; e) select a sampling method; and f) determine the sampling size.

5.5.1 Types of Sampling Schemes

As the main aim of the research is to address and examine the available data and information about the research question, the researchers must obtain precise research sample. Moreover, in order to validate research findings, the sample should carry the common characteristics as the research population. Consequently, researchers should pay attention to the type of research sample.
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In this context, several studies have attempted to classify the methods of research sample. Royer and Zarowski (2001) determined four methods, which can be used to select a research sample:

1. probability sampling also known as random method
2. judgement sampling, which is determined by personal opinion
3. quota sampling
4. convenience sampling.

Collins and Hussey (2003) stated that there are three main methods of selecting a sample including random, systematic and stratified sampling. In addition, they stated that there are other various methods to select research samples such as quota, cluster, multistage and the snowball sampling. Hoffmeyer-Zlotnik (2003) supported the random route sampling method due to its ability to control sample error. This method is used widely by social and business research. Hoffmeyer-Zlotnik (2003) also divided the method into three types: controlled, uncontrolled and mixed random route and quota sampling.

In general, there are two common classifications of sample selection: probability and non-probability (Panneerselvam 2004, Dhawan 2010 and Hair Jr et al. 2011). Under the probability method, each element of the population has the same chance to be selected. It is also known as a random sample. Non-probability sample, which is also named judgement sampling, relies on the researcher’s deliberation during selection of the sample.

5.5.1.1 Sampling Methods and Distribution of the Research Population in this Study

The research population in this study refers to the entire population of the Libyan external auditors who were located over a wide geographical area of Libya with 2,212 external auditors (as listed on the Libyan Accountants and Auditors Association 2010).

In addition, it can be said that there are no significant differences between population units due to the uniform requirements for registration as a Libyan external auditor. Therefore, a probability sampling method was adopted by this research. Kryskik and Finn (2010) and Kumar (2011) stated that the probability sample is an appropriate method of selecting a sample for an exploratory research. This is because the probability sample allows researchers to generalise their findings to the research population.

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Finally, to avoid any risk of a biased sample and generalise the findings to the population, the researcher selected the research sample from different areas of Libya.

5.5.2 Sample Size

In the context of the relationship between population and sample size, the important question is to what extent the researchers accept the sample size and its errors. Therefore, researchers have attempted to determine methods in order to calculate sample size. For instance, a simplified equation to estimate the research sample was formulated by Yamane (1967).

Since a precise sample size is one of the important issues in the research processes, Kothari (2004) stated that neither a large sample nor a very small sample can achieve research objectives. This is because the findings that come from a very small sample cannot be representative of the research population while the large sample causes a waste of the financial resources.

Wilson (2010) defined the sample size as an attempt to strike a balance between the sufficient and efficient data that comes from the research sample and he used Yamane (1967)’s formula. Wilson (2010) indicated that there are some factors that affect the sample size including the number of research objectives, comparability with the previous research, the acceptable sampling error and the population size.

5.5.2.1 Sample Size in this Study

In this study, 400 of Libyan external auditors were selected from 2,212 Libyan external auditors using Yamane (1967)’s formula (see also Sekaran 2003, p. 294 and Wilson 2010).

\[
N = \frac{N}{1 + Ne^2}
\]

Where: \( n \) = a sample size, \( N \) = population size and \( e \) = desires margin error. In this research, \( N = 2,212 \) and \( e = 0.05 \).

Therefore, the research sample, \( n = \frac{2212}{1+2212 (0.05)^2} \)
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Then \( n = 338.7 \approx 339 \) auditors (15 per cent of the research population).

The researcher decided to distribute 400 questionnaires in order to reduce a non-response rate (Dörnyei and Taguchi 2010; Bryman and Bell 2011). This also ensures that the research findings have been based on a proper sample size.

5.6 Statistical Techniques

Following determining and collecting the research data, statistical methods and techniques should be selected for specific analyses of the research sample under study. Thus, the statistical method section is a vital task in the research that includes statistical techniques that examine the research data and tests the research hypotheses. In other words, statistical analysis has been used by the researchers to interpret the research findings. Krishnaswamy and Satyaprasad (2010) concluded the main purposes of analysing research data as follows:

1. producing descriptive statistics for the characteristics of the research sample
2. exploring the factors that affect complex phenomena
3. determining the nature of an association between the research variables
4. generalising the finding to the research population.

Krishnaswamy and Satyaprasad (2010) stated that there are two main sorts of statistical techniques descriptive and inferential analysis. The next sections 5.6.1 and 5.6.2 will discuss these sorts of statistical techniques.

5.6.1 Descriptive Analysis

In line with the aim of the research (exploratory study), descriptive statistics have been adopted as one of the methods of data analysis. Collins and Hussey (2003) indicated that the descriptive method especially in the exploratory research is one of the efficient methods of data analysis.

Han et al. (2006) and Adams et al. (2007) supported using descriptive statistical analysis for many types of the research and they stated that the descriptive analysis is important to obtain an overall view of the research findings. The reason is that it can simply present and conclude
the central tendency and the standard deviation of the research. The descriptive analysis presents research data in tables, graphs and figures.

5.6.2 Inferential Analysis

Inferential analysis aims to reach a conclusion and inferences based on the research results. Mbengue (2001) stated that inferential statistics prove the basis of the generalised findings from a research sample to the population. Thus, this method aims to test the research hypotheses in order to make decisions about whether the researchers will accept or reject those hypotheses.

5.6.2.1 Testing the Research Hypotheses

Hypothesis testing is one of the methods of inferential analysis. As explored in the above discussion, to address research questions, some investigators divide their main questions into hypotheses. There are two main types of the research hypotheses: the null hypotheses and the alternative hypotheses (the opposite of the null hypotheses). The aim of testing hypotheses is to reach a decision about whether the research accepts or rejects the null hypotheses (Hair Jr et al. 2003). Therefore, Wilson (2010) stated that to achieve the aim of hypotheses testing, researchers should apply the following steps:

1. wording the null and alternative research hypotheses
2. determining the significant level
3. choosing a statistical test.

There are numerous methods to test research hypotheses such as the t-test, one-way ANOVA test and the chi-square test. Collins and Hussey (2003) stated that the t-test can be used to examine whether there is a difference between the mean of a research sample and a particular value while the one-way ANOVA and chi-square tests used to test the extent of the difference among two or more groups.

5.6.3 Software for Data Analysis

The development of computer programs has provided many types of software that have assisted the data analysis of research. Statistical packages such as Statistical Package for the
Social Sciences (SPSS), MAXqda, Atlas.ti, QSR NVivo and HperResearch have been used as common computer programs for data analysis (Bazeley 2010). Both quantitative and qualitative data can be analysed by those software programs. Burns and Burns (2008) stated that the SPSS is one of the effective computer programs that have been widely used by academic research.

Despite the increase in computer software that can analyse data, the decision about the choice of appropriate computer software relies on some issues such as the type of research data, the research budget and aim of the analysis (association or difference between factors, variables or groups).

5.6.4 Adopted Methods of Data Analysis in this Study

Professionals and experts in statistical science have argued that there are numerous statistical techniques that can be used to analyse the research data (Ott and Longnecker 2008; Frenud et al. 2010). However, selecting types of statistical tests often rely on particular conditions of the study such as its research aim, the basis of data distribution and the type of the measurement scales that used in the questionnaire (Frenud et al. 2010). Generally, there are two common statistical techniques: descriptive and inferential techniques. In order to obtain the research results from the questionnaire, this research adopted the following methods of data analysis.

5.6.4.1 Descriptive Analysis in this Study

The aim of this study is to explore materiality concept and its factors from the perspective of Libyan external auditors. In addition, the study aims to present the relationship between the international standards of materiality auditing and those standards that have been implemented by Libyan auditors. Therefore, descriptive analysis is appropriate to summarise the most and least frequent materiality concepts and factors disclosed by Libyan auditors and then assess whether they related to the international concepts and standards. Israel (2008) indicated that descriptive statistical method can summarise and present the particular characteristics of the research sample in order to obtain an overview of the research population.
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This type of statistical analysis also provides a comprehensive and simple description to summarise characteristics of the data that have been collected (Healey 2011). Healey (2011) also stated that there are two methods of descriptive statistical analysis: univariate and bivariate. The study applied the univariate descriptive in order to summarise and describe a single variable. This can be provided by the percentages, averages and graphs. The bivariate method is the second method of descriptive statistical analysis when the investigation attempts to understand and explain the relationship between more than one variable. In this study, the descriptive statistical analysis was employed to analyse all research questions.

Tables, figures, comprise frequencies, and measures of central tendency have been employed in order to describe and explain the characteristics of the research sample. The descriptive statistical analysis was also used to summarise the main issues of materiality auditing from the perspective of the Libyan external auditors. In addition, the descriptive analysis has also been used to summarise some of the personal information of participants such as the educational qualifications, professional qualifications and work experience.

5.6.4.2 Inferential Statistical Analysis in this Study

In order to generalise the research results to the research population, the inferential statistical analysis has been used to test the research hypotheses. Using the inferential statistical analysis, the following goals will be achieved: a) supporting the findings that have been presented by the descriptive analysis; b) testing the research hypotheses; c) identifying the significant differences of means of the responses; and d) providing extra detailed results about the research data (Healey 2011). In this study, to test the research hypotheses and identify the significant differences of the research variables, varieties of the inferential statistical analysis were employed as in the following sub-sections.

5.6.4.2.1 One Sample T-test

According to Witte and Witte (2004) and Healey (2011), one sample t-test is an applicable test for research studies that aim to investigate the significant differences between different variables and responses. In addition, such tests provide adequate information about the important variables from the perspective of the participants. Further, one sample t-test is employed by studies that have a large research population and its sample size is more than 30
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(Welkowitz et al. 2012). One sample t-test has been applied in this study for the following reasons: a) this exploratory research aims to investigate (as a case study from Libya) materiality auditing issues including the importance of materiality auditing, assessment of the materiality decisions and the important factors for the materiality auditing decision; b) the research population is 2,212 auditors and the research sample size is 339; and c) in this research, the population mean is unknown, and then using a five-point Likert scale, 3 is acceptable as the population mean (hypothesised value) in order to compare it with the sample mean (Sekaran and Bougie 2010).

Therefore, according to above conditions, one sample t-test is an applicable test to achieve the research objectives. One sample t-test can be computed using the following formula:

\[
t = \frac{\bar{X} - \mu}{S_{\bar{X}}}
\]

Where: \(\bar{X}\) = the observed value of the sample mean, \(\mu\) = the hypothesised value of the population mean and \(S_{\bar{X}}\) = the estimated standard error of the mean (Welkowitz et al. 2012).

There are two types of one sample t-test: one-tailed and two-tailed tests. According to Healey (2011), the decision regarding which test to use is based on the type of research expectations on the significant differences between the sample and the population. The one-tailed test is used when it is expected there are no differences between the results from the sample and population (known outcomes). In contrast, the two-tailed test is employed when it is expected there are differences between the sample outcomes and the population outcomes (unknown outcomes). In this research, one sample t-test (two-tailed test) was employed.

In this research, one sample t-test was an applicable inferential statistical analysis for the following reasons:

1. As mentioned earlier in this chapter, this study employed an exploratory method as a research type.
2. The study is the first comprehensive study regarding the materiality auditing in Libya therefore, the outcomes from this study cannot be expected (unknown outcomes).
3. The population size is more than 2,200 and therefore, the population standard deviation is unknown (Welkowitz et al. 2012).
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5.6.4.2.2 Binomial Test

In order to obtain confident findings in this study, a Binomial test was also applied to retest some questions that have been tested by a one sample t-test. According to Rosenthal (2011), both the Binomial test and one sample t-test can be employed to investigate whether there are significant differences between the responses among the research sample. Therefore, the outcomes should be similar from those tests.

5.6.4.2.3 Friedman Test and Kendall’s W-Test

Friedman test and Kendall’s W-test (also known as Kendall’s coefficient) were employed to test some hypotheses and rank the important variables in the survey. Although some statisticians indicated that there are no differences between Friedman and Kendall’s W tests regarding their results, the Kendall’s W-test can provide more interpretation as well as a coefficient concordance (Asthana and Bhushan 2007).

5.6.4.2.4 Factor Analysis

Part four of the questionnaire (the qualitative factors that are important for materiality auditing decisions in Libya) includes more than 20 questions regarding the factors that might be important for materiality decisions in Libya. Those questions comprised different independent variables (non-numerical variables), which might have significantly different levels of importance in their decisions. In other words, this section of the questionnaire aims to test the hypothesis regarding what are the important qualitative factors for materiality auditing decisions in Libya. In this situation, there is a need for a special statistical technique to gather and analyse different variables in order to determine their cumulative impacts on dependent variable (the materiality concept). For those reasons, factor analysis has been applied to summarise/reduce large numbers of interrelated qualitative materiality factors to a few underlying factors that describe respondents’ attitudes towards the important qualitative materiality factors. Zikmund (2003, p. 586) stated that ‘the general purpose of factor analysis is to summarise the information contained in a large number of variables into a small number of factors’. In other words, the factor analysis method is able to reduce a large number of the variables to reasonable variables that have a significant correlation. Moreover, the interesting objective of factor analysis is to measure and categorise attitudes of the responses with a
number of qualitative statements (Foster et al. 2006). However, Foster et al. (2006) indicated that factor analysis requires some conditions of the data to give adequate results. For example, a) the sample size should be more than 100 responses, and b) examining the data with KMO test (Kaiser–Meyer–Olkin measure of sampling adequacy) to decide whether the factor analysis can be applied or not.

5.6.4.2.5 One-Way ANOVA

This test is applied to determine whether there is a significant difference between the means of two or more groups. In this research, there is a need to test variables as groups regarding whether they have the same or different impacts. According to Pagano (2012), one-way ANOVA is a proper technique to explore the differences between the variables’ effects. The general reasoning of a one-way ANOVA test is that it can compare means of different groups as well describing these differences. In order to apply this statistical technique, the variances between the variables should be equal in case of a large sample size (accepted the null hypothesis). In other words, one-way ANOVA includes a test of homogeneity of variances that should provide its p-value to be more than a significant level (α). However, statisticians indicate that one-way ANOVA can also be applied if p-value is smaller than significant level (whenever the sample size is not very big) (Mahapoonyanont et al. 2010; Ryan 2011).

In terms of the statistical computer programs, SPSS including one sample t-test, factor analysis and one-way ANOVA will be employed to analyse the data. According to Bryman and Bell (2011), SPSS program has been widely used as efficient statistical computer programs for analysing data.

As demonstrated in the above discussion, research methodology is an important part of any research; thus, the researchers have to explain the methodology that has been adopted in order to obtain research findings and the reasons for following this methodology. Figure 5.2 shows the main structure of the research methodology that has been followed in this study.
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Figure 5.2 Research Methodology
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5.7 Reliability and Validity of Research Measurement

The precise measurements and scales of the research could reduce the risk that comes from
gathering the concepts and data of the research without explaining how they were measured
and what they represent. Therefore, researchers must ensure that the research measurements
and scales are valid and reliable (Hair Jr et al. 2011).

Newman and Benz (1998) compared validity and reliability concepts and stated that the main
aim of the reliability concept is to support the suitability of research outcomes. The reliability
aims to describe the regularity of the research measurements and the stability of research
findings. They also pointed out that reliability is a part of the validity processes; therefore, if
researchers provide the validity condition in their studies, the reliability condition will be
confirmed.

In the context of validity, essentially, the term ‘validity’ refers to the extent to which
evidence has supported the research processes. Validity is the concept that mainly explains
the reasons for using specific methods during the research processes (Spector 1981). In other
words, the validity concept refers to whether the research has adopted true methods to
to express what it was aimed to express.

5.7.1 Justification of Reliability and Validity in this Study

Although the justifications of the research processes have been presented in previous
sections, the aim of this section is also to conclude the justification relating to an acceptable
level of reliability and validity.

Firstly, in respect of reliability, the research population is homogenous due to the main
requirements to be Libyan external auditors (nationality and bachelor of accounting with five
years of experience in accounting field). Therefore, the same data regarding the research
problem can be collected by other researchers. In addition, two pilot studies were employed
(the rate of response was 100 %) in order to confirm the research reliability (Drucker-Godard
et al. 2001).
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Secondly, in terms of the validity context, statistical method was employed by this study in order to determine an adequate sample (content validity). In addition, the questionnaire was adopted as method of data collection according to the research type and objectives. Moreover, concerning data analysis, the research data was analysed by applicable statistical techniques that were also approved by statistical experts.

5.8 Ethics in Business Research

In general, the ethics concept refers to the guidelines and standards that guide the social behaviour and human relationships. In the context of research, the ethical issue has become an important requirement to both professional practices and academic research particularly after the international scandals of the business sector (Flint 2005). Wilson (2010) also indicated that societies have required a high level of ethical standards in both professional auditing practice and academic auditing research. Wilson (2010) and Hair Jr et al. (2011) stated that bankruptcy of big international corporations such as Enron and WorldCom have sharply arisen a question whether the accountants and auditors have understood and followed ethical rules in their studying as well in business.

In this thesis, ethics approval was addressed by Deakin University and the researcher explained the points to the research participants relating the ethical research rules. A copy of the ethical approval letter from Deakin University was attached with this thesis in Appendix A.

5.9 Conclusion

The methodology chapter has achieved three main aims. Firstly, it reviewed the literature regarding the main procedural matters in research such as research structure, type, design and problem. Secondly, the chapter justified the research techniques adopted by this thesis. Since this is the first comprehensive study of materiality auditing in Libya, it adopted an exploratory design. In addition, quantitative approaches have been employed in order to explore and gather data surrounding the issues (e.g., concepts, regulation, factors and thresholds) relating to the materiality auditing and its decisions in Libya.
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In terms of data collection and analysis, the questionnaire was employed to gather a primary data. It was divided into six sections including the materiality issues from the perspective of the Libyan external auditors, sources of the guidelines for the materiality auditing decisions, quantitative materiality forms and factors that have been adopted, qualitative materiality factors in Libya, the relationship between quantitative and qualitative materiality factors and the Libyan external auditors’ characteristics. Moreover, in order to obtain a clear understanding among the participants, the questionnaire was tested in two pilot studies (the rate of response was 100 %). Those pilot studies provided valuable feedback and comments that improved the questionnaire.

In terms of type of sample, sample size and statistical techniques, the methodology chapter explained and justified the methods of calculating an effective sample size and statistical techniques. Finally, the chapter discussed the reliability and validity of the research and presented the justification of ethical research in this thesis.

The following chapter will present the data analysis and research results.
Chapter 6: Data Analysis and Research Results

6.1 Introduction

The data analysis and research results chapter provides empirical results relating to the research problems that have been discussed broadly by the literature review chapter. In this context, overviews of the research sample and conduct of the survey will be presented in section 6.2. Section 6.3 presents content validity and reliability of the research survey’s questions. The statistical methods used to analyse the research data is also presented in section 6.4. Finally, data analysis and the results will be presented in section 6.5.

6.2 The Research Sample and Conduct of the Survey

As with the exploratory study, the random sample method was adopted to collect the data via a survey. The main aim was to investigate the materiality auditing issue among Libyan external auditors in different locations of Libya. Thus, the outcomes that come from the research sample should have the ability to be generalised through the research population. Healey (2011) stated that although the non-random sample method for data collection can save time and money, it cannot obtain a summary that can be generalised to the research population. Therefore, the random sample is an appropriate method of data collection in the case of exploratory studies. In terms of the sample size (for estimating the sample size and regarding the research population size and the sampling error that has been accepted by this research) statistical formulas have been applied, which indicated that the research sample should be 339 participants (see Chapter 5). However, in order to obtain an appropriate response rate, 400 questionnaires were randomly distributed by the researcher. The response rate to this survey was 85 per cent (340 questionnaires as shown in Table 6.1). This demonstrates that the research survey achieved a high response rate.
Table 6.1 Sample Distribution and Response Rate

<table>
<thead>
<tr>
<th>The city</th>
<th>Questionnaires Distributed</th>
<th>Responses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number</td>
<td>Percentage %</td>
</tr>
<tr>
<td>Tripoli</td>
<td>198</td>
<td>172</td>
<td>86.9</td>
</tr>
<tr>
<td>Benghazi</td>
<td>107</td>
<td>82</td>
<td>76.6</td>
</tr>
<tr>
<td>Alkhums</td>
<td>34</td>
<td>33</td>
<td>97.0</td>
</tr>
<tr>
<td>Misurata</td>
<td>33</td>
<td>30</td>
<td>91.0</td>
</tr>
<tr>
<td>Zliten</td>
<td>28</td>
<td>28</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>400</strong></td>
<td><strong>340</strong></td>
<td><strong>85.0</strong></td>
</tr>
</tbody>
</table>

Table 6.1 shows distributions of the questionnaires as follows: 198 in Tripoli (capital city of Libya); 107 in Benghazi (the second biggest city in Libya); 34 in Alkhums; 33 in Misurata; and 28 in Zliten. Almost all questionnaires were distributed and collected by the researcher/assistants personally; only 23 questionnaires were sent and received by email.

6.3 The Content Validity and the Reliability of the Research Survey’s Questions

As discussed in the methodology chapter, two pilot studies were conducted to validate the research questionnaire with 21 questionnaires (10 in the first pilot study and 11 in the second pilot study). These pilot studies gave valuable comments that confirmed the content validity of the research questions. The questionnaire was also approved by the Human Research Ethics Committee of Deakin University. The reliability of the survey’s questions were thus confirmed. The reliability of the research questions means that the same results are likely to be achieved if the survey has been repeated several times (Brace 2008). There are numerous measures of the reliability of research’s questions that rely on the type and size of the research variables and questions. According to Sekaran (2003), one of the applicable measures of the questionnaire’s reliability is the Pearson correlation. It gives the extent of correlation between the research variables. In addition, Cohen et al. (2007) and Stamatis
(2012) also indicated that Pearson’s correlation is applicable to test the reliability of the research questionnaire. Thus, Pearson’s test was employed to determine the correlation between the survey questions. The Pearson’s test pointed out that the correlation of research questions is 89 per cent with 0.000 of p-value. This means that the questions of the research have a high rate of the reliability.

Further, according to Sekaran and Bougie (2010), Cronbach’s Alpha test is an applicable test for the reliability of the variables and their statistics. By applying this test, the results indicated that the variables of the questionnaire are reliable with 68.8 per cent Cronbach’s Alpha. The percentage of Cronbach’s Alpha satisfies the internal reliability coefficient in the research variables. Kent (2001) indicated that in exploratory research, 0.50 or higher of Cronbach’s Alpha can be accepted as a satisfactory level of the reliability.

6.4 The Statistical Methods Used to Analyse the Research Data

As discussed in the methodology chapter, this study used two common statistical techniques: descriptive and inferential techniques. Descriptive analysis can provide an overview of the research results as well summarise these results. In order to generalise the research results to the research population, the inferential statistical analysis has been used to test the research hypotheses. This study applied different techniques of the inferential statistical analysis including one sample t-test, Binomial test, Friedman test, Kendall’s W-test, factor analysis and one-way ANOVA.

6.5 Data Analysis and the Results

In this research, the data have been collected from one group (Libyan external auditors) in different places in Libya. Therefore, in order to describe the participants in the survey, many variables were employed. The following section will deal with the participants’ characteristics.
6.5.1 Profiles of the Participants

Part six of the questionnaire (as shown in Appendix B) consisted of seven questions regarding the personal information and background of the research sample.

As Table 6.2 shows, the research sample consisted of 340 Libyan external auditors (according to the Libyan Accounting and Auditing Association and the Department of Income Tax) of which 89.1 per cent were males and 10.9 per cent were females. In accordance with the level of education and the qualification places, the findings indicated that the majority of respondents had at least a bachelor degree of accounting (69.1 per cent) while 81 and 21 respondents (23.8 per cent and 6.2 per cent) obtained a Master and PhD degree, respectively. Regarding where they qualified, 307 participants obtained their qualifications from Libya and Egypt (80 per cent from Libya and 10.3 per cent from Egypt) while only 33 of them obtained their degrees from Western countries (5.6 per cent from the UK and 4.1 per cent from the US). Of the total research sample of 340, 173 of the respondents obtained the professional qualifications from the Arab Society for Certified Accountants (ASCA) while the number of the Libyan external auditors who obtained international qualifications was only 21 (14 from Association of Certified Public Accountants [ACPA] from the UK, four from Association of Chartered Certified Accountants [ACCA] from the US and three from the Institute of Chartered Accountants of Scotland [ICAS]). However, 146 of the respondents have no professional qualifications at all (42.9 per cent).

Questions regarding the current employment, length of the experience as the external auditor and whether their experience is in a specialist external auditing were also asked. Most participants in the research sample (69.1 per cent) have worked at private local audit offices while only 24.1 per cent of them have worked at the government audit office (the Libyan Audit Bureau). The lowest percentage (6.8 per cent) was working at the private international audit offices in Libya (from the UK and the US).

In terms of the length of the experience, 16.2 per cent of the respondents has worked more than 20 years, 35.6 per cent of the respondents has worked from 10 to 20 years, and 31.2 per cent of the research sample has worked from five to 10 years. The percentage of the respondents who have worked less than five years was 17.1 per cent. The statistics from the seventh question (a specialist field as external auditor) pointed out that the highest percentage of the participants has a specialist experience in the services industries (e.g., taxations,
telecommunication and education) with 45.9 per cent, while those who have a specialist experience in nutrition industry were 31.2 per cent. The respondents with the oil and steel industries experiences have the lowest percentages (5.6 per cent and 3.2 per cent respectively). Finally, it can be seen that 14.1 per cent of the respondents have non-specialist experience as an external auditor. Table 6.2 shows more details regarding the personal information and background of the research sample.
# Chapter 6: Data Analysis and Research Results

## Table 6.2: Personal Information and Background of the Participants

<table>
<thead>
<tr>
<th>Demographic profile</th>
<th>Number of participants</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>303</td>
<td>89.1</td>
</tr>
<tr>
<td>Female</td>
<td>37</td>
<td>10.9</td>
</tr>
<tr>
<td>Highest level of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher secondary education</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>235</td>
<td>69.1</td>
</tr>
<tr>
<td>Master degree</td>
<td>81</td>
<td>23.8</td>
</tr>
<tr>
<td>PhD degree</td>
<td>21</td>
<td>6.2</td>
</tr>
<tr>
<td>Qualification place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Libya</td>
<td>272</td>
<td>80.0</td>
</tr>
<tr>
<td>Egypt</td>
<td>35</td>
<td>10.3</td>
</tr>
<tr>
<td>The UK</td>
<td>19</td>
<td>5.6</td>
</tr>
<tr>
<td>The US</td>
<td>14</td>
<td>4.1</td>
</tr>
<tr>
<td>Professional qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Association of Chartered Certified Accountants (ACCA)</td>
<td>4</td>
<td>1.2</td>
</tr>
<tr>
<td>Institute of Chartered Accountants of Scotland (ICAS)</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>Association of Certified Public Accountants (ACPA)</td>
<td>14</td>
<td>4.1</td>
</tr>
<tr>
<td>Arab Society for Certified Accountants (ASCA)</td>
<td>173</td>
<td>50.9</td>
</tr>
<tr>
<td>No professional qualification</td>
<td>146</td>
<td>42.9</td>
</tr>
<tr>
<td>Current employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governmental Audit office</td>
<td>82</td>
<td>24.1</td>
</tr>
<tr>
<td>Private Local Audit Office</td>
<td>235</td>
<td>69.1</td>
</tr>
<tr>
<td>Private International Audit Office</td>
<td>23</td>
<td>6.8</td>
</tr>
<tr>
<td>Experience as the external auditor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 5 years</td>
<td>58</td>
<td>17.1</td>
</tr>
<tr>
<td>More than 5 and up to 10 years</td>
<td>106</td>
<td>31.2</td>
</tr>
<tr>
<td>More than 10 and up to 20 years</td>
<td>121</td>
<td>35.6</td>
</tr>
<tr>
<td>More than 20 years</td>
<td>55</td>
<td>16.2</td>
</tr>
<tr>
<td>A specialist external auditor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil industry</td>
<td>19</td>
<td>5.6</td>
</tr>
<tr>
<td>Steel industry</td>
<td>11</td>
<td>3.2</td>
</tr>
<tr>
<td>Nutrition industry</td>
<td>106</td>
<td>31.2</td>
</tr>
<tr>
<td>Services industry (e.g., Telecommunication, Health, Education, Taxations)</td>
<td>156</td>
<td>45.9</td>
</tr>
<tr>
<td>Non-specialist external auditor</td>
<td>48</td>
<td>14.1</td>
</tr>
</tbody>
</table>
Chapter 6: Data Analysis and Research Results

The personal profiles of the target sample conclude that most participants hold bachelor and master degrees of accounting having graduated from Libyan universities. In terms of work experience, more than a half of the respondents have worked between 5 and 20 years in the services and nutrition industry fields.

6.5.2 Libyan External Auditors’ Attitudes towards the Issue of Materiality Auditing

Since the overall objective of this research is to explore materiality auditing issues in Libya, it is necessary to investigate the Libyan external auditors’ view regarding the materiality concept. For that reason, this part of the chapter is aimed at exploring the important issues of the materiality audit from the perspective of the Libyan external auditors.

6.5.2.1 The Concept of Materiality

In order to test the Libyan external auditors’ view on materiality, the following sub-questions and hypotheses are designed:

To what extent do the Libyan external auditors agree or disagree with the difficulty, importance and responsibility of the materiality auditing concept?

The question has been addressed by the following hypotheses:

\( H_{01a} \): There is no agreement between the Libyan external auditors that the concept of materiality is a difficult issue during the audit processes.

\( H_{01b} \): There is no agreement between the Libyan external auditors that the concept of materiality is an important issue during the audit processes.

\( H_{01c} \): There is no agreement between the Libyan external auditors that the auditors should have responsibility for making materiality auditing decisions.

Table 6.3 provides an overview of the Libyan external auditors’ perspectives towards the difficulty, importance and auditors’ responsibility regarding the materiality auditing concept.
Table 6.3: Frequency of the Responses Regarding the Difficulty, Importance and Responsibility of the Materiality Auditing Concept

<table>
<thead>
<tr>
<th>The statement</th>
<th>Responses</th>
<th>Frequency of responses</th>
<th>Percentage of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>The concept of materiality audit is a difficult concept.</td>
<td>Strongly disagree</td>
<td>12</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>101</td>
<td>29.7</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>11</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>213</td>
<td>62.6</td>
</tr>
<tr>
<td></td>
<td>Strongly agree</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>The materiality concept in the auditing processes is important.</td>
<td>Strongly disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>30</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>Strongly agree</td>
<td>309</td>
<td>90.9</td>
</tr>
<tr>
<td>The external auditors should have responsibility for making materiality auditing decisions.</td>
<td>Strongly disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>10</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>23</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>Strongly agree</td>
<td>306</td>
<td>90.0</td>
</tr>
</tbody>
</table>

The results in Table 6.3 show that the majority of the participants had positive awareness regarding the difficulty, importance and auditors’ responsibility in dealing with materiality in auditing. It can be seen that the importance of the materiality concept in the auditing profession (statement 2) obtained a high level of an agreement (99.7 per cent of the respondents agree or strongly agree with statement 2) in the view of the Libyan external auditors followed by the auditors’ responsibility (statement 3) with 96.8 per cent of the respondents who agree or strongly agree. The percentage of the respondents who agree or strongly agree with statement 1 (difficulties of materiality concept) was 63.5 per cent.

One sample t-test was also employed to confirm the above results that there is a strong agreement between the Libyan external auditors that the materiality concept is one of the most important issues in the auditing process.
Table 6.4: One Sample T-test for the Difficulty, Importance and Responsibility of the Materiality Auditing Concept

<table>
<thead>
<tr>
<th>The statement</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>T-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>The concept of materiality audit is a difficult concept.</td>
<td>3.28</td>
<td>1.01</td>
<td>5.03</td>
<td>0.000*</td>
</tr>
<tr>
<td>The materiality concept in the auditing processes is important.</td>
<td>4.90</td>
<td>0.324</td>
<td>107.979</td>
<td>0.000*</td>
</tr>
<tr>
<td>The external auditors should have a responsibility for making the materiality auditing decisions.</td>
<td>4.86</td>
<td>0.440</td>
<td>78.057</td>
<td>0.000*</td>
</tr>
</tbody>
</table>

*P-value < 0.001

As depicted in Table 6.4, one sample t-test found that the mean values for all the statements were more than 3 and the level of significance (p-value) was less than 0.001. Thus, the agreement among the respondents is significant. More specifically, the outcomes of one sample t-test for the materiality issue in Libya supported the previous results in Table 6.3.

Materiality is showed to be the main important concept in the auditing process followed by the auditors’ responsibility for making the materiality decisions. In addition, some of respondents indicated that materiality is a difficult concept. Thus, the null hypotheses \((H_{01a}, H_{01b} \text{ and } H_{01c})\) are rejected and, therefore, the concept that the materiality is a difficult and important concept is agreed upon among the Libyan external auditors and auditors should have a clear responsibility towards it.

6.5.2.2 Necessary Guidelines of the Materiality Auditing in Libya

To investigate whether it is necessary to have guidelines for materiality auditing decisions, the participants were asked:

Do you think it is necessary in your work (as an external auditor) to have guidelines for making materiality auditing decisions?
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The respondents were asked whether there is a necessity to have guidelines for making materiality decision during the auditing processes. The frequency of their responses is shown in Table 6.5.

Table 6.5: Frequency of the Responses Regarding the Necessity to Have Guidelines for Making Materiality Auditing Decisions

<table>
<thead>
<tr>
<th>Agreement’s degree</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not necessary at all</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Not necessary</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Moderate</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>Necessary</td>
<td>22</td>
<td>6.5</td>
</tr>
<tr>
<td>Very necessary</td>
<td>315</td>
<td>92.6</td>
</tr>
</tbody>
</table>

According to the above table, 99.1 per cent of the respondents (337 responses) indicated that it is necessary and very necessary to have guidelines for materiality decisions. Further, one sample t-test was employed in order to confirm the descriptive results regarding the necessity to have guidelines for materiality decisions.

The results from one sample t-test showed that the mean value for that statement reached very high level (4.91), the standard deviation was 0.328 and the level of significance (p-value) was less than 0.001. Thus, the necessity of having guidelines for materiality auditing decisions was strongly confirmed. In addition, similarly, the result from one sample t-test supported the view that it is necessary to have guidelines for materiality auditing decisions in Libya. Moreover, it can be said that the results confirm the previous results from section 6.5.2.1 (particularly statement 2) regarding the importance of materiality concept.
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6.5.2.3 Whether the Libyan External Auditors Follow any Guidelines or Benchmarks in their Materiality Decisions

In order to investigate whether the Libyan auditors follow any guidelines or benchmarks in their materiality decisions, the participants were asked the following question:

Does your office/firm have or follow any professional guidelines or benchmarks for making materiality decisions?

Descriptive analysis was used to explore whether the Libyan external auditors follow any guidelines or benchmarks in their materiality decisions as shown in Table 6.6.

**Table 6.6: Frequency of the Responses for Using Guidelines or Benchmarks in Materiality Auditing Decisions**

<table>
<thead>
<tr>
<th>Agreement’s degree</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never at all</td>
<td>31</td>
<td>9.1</td>
</tr>
<tr>
<td>In limited processes</td>
<td>95</td>
<td>28.0</td>
</tr>
<tr>
<td>Sometimes</td>
<td>17</td>
<td>5.0</td>
</tr>
<tr>
<td>Often</td>
<td>179</td>
<td>52.6</td>
</tr>
<tr>
<td>In almost all processes</td>
<td>18</td>
<td>5.3</td>
</tr>
</tbody>
</table>

As depicted in Table 6.6, 57.9 per cent of the respondents follow materiality guidelines (‘often’ with 52.6 per cent and ‘in almost all processes’ with 5.3 per cent). The percentage of respondents whom ‘sometimes’ follow materiality guidelines was five per cent and 28 per cent of them follow materiality guidelines ‘in limited’ processes. Only 9.1 per cent of the respondents indicated that they do not follow materiality guidelines or benchmarks in their materiality decisions. Further, the following hypothesis will address that question:

**H02: No guidelines or benchmarks have been followed by the Libyan external auditors for making materiality decisions.**

The hypothesis was tested by one sample t-test (Mean = 3.17, Standard deviation = 1.1651 and T-value = 2.7). The results show the mean value for the statement was more than 3 and the level of significance (0.007) was less than 0.01 so that the findings rejected the null
hypothesis and accepted the alternative hypothesis (there are materiality guidelines and benchmarks that are followed by the Libyan external auditors).

6.5.2.4 Sources of the Guidelines and Benchmarks for Materiality Auditing Decisions in Libya

Following the questions of guidelines and benchmarks for materiality auditing decisions, the next question aimed to determine the sources of the guidelines and benchmarks and which source should be followed.

For those who indicated that they follow (except those responded never at all) guidelines and benchmarks in their materiality auditing decisions (309 participants), the following question was asked:

Could you please determine the source of the guidelines and benchmarks in Libya?

Table 6.7: Frequency of the Responses Regarding the Source of the Guidelines and Benchmarks for Materiality Auditing Decisions

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Libyan standards</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Arabic standards</td>
<td>56</td>
<td>18.1</td>
</tr>
<tr>
<td>Standards from developing countries</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>International standards</td>
<td>253</td>
<td>81.9</td>
</tr>
<tr>
<td>Other sources</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The frequency of responses in Table 6.7 shows that the international accounting and auditing standards is the main source of the guidelines for materiality decisions in Libya with 81.9 per cent followed by Arabic accounting and auditing standards (which is not different from the international standards) with 18.1 per cent.
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6.5.2.5 Responsibility of Issuing the Guidelines and Benchmarks for Materiality Auditing Decisions in Libya

For those who answered they do not follow (those responded never at all) any guidelines and benchmarks in their materiality decisions (31 participants, only using their professional judgements in their materiality decisions), the following question was asked:

Who do you think should be responsible for issuing the materiality benchmarks in Libya?

As shown in Table 6.8, the participants were given four responsible bodies for issuing the guidelines and benchmarks for materiality auditing decisions.

<table>
<thead>
<tr>
<th>Responsible bodies</th>
<th>Frequency responses</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>National governmental laws</td>
<td>5</td>
<td>16.1</td>
</tr>
<tr>
<td>Libyan Accounting and Auditing Association</td>
<td>26</td>
<td>83.9</td>
</tr>
<tr>
<td>International Accounting Standards Boards</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>International Auditing and Assurance Standards Board</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

From Table 6.8, it can be seen that majority of the participants (83.9 per cent), who did not follow any guidelines, believe the guidelines and benchmarks should come from Libyan Accounting and Auditing Association while 16.1 per cent believed the guidelines should be issued by the national government.

6.5.2.6 Benefits of the International Guidelines and Benchmarks of Materiality Auditing to the Libyan Auditors

In terms of the impact of the international accounting and auditing standards on the auditing profession in Libya, the respondents were questioned as follows:

To what extent do you agree or disagree that the international guidelines and benchmarks of materiality auditing are beneficial for making materiality auditing decisions in Libya?
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The frequency of the responses regarding the question is presented in Table 6.9.

Table 6.9: Frequency of the Responses for the Benefits of the International Guidelines and Benchmarks of Materiality Auditing to the Libyan Auditors

<table>
<thead>
<tr>
<th>Agreement’s degree</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>Disagree</td>
<td>307</td>
<td>90.3</td>
</tr>
<tr>
<td>Moderate</td>
<td>4</td>
<td>1.2</td>
</tr>
<tr>
<td>Agree</td>
<td>16</td>
<td>4.7</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>10</td>
<td>2.9</td>
</tr>
</tbody>
</table>

The outcomes in Table 6.9 demonstrate that there is strong agreement among the participants that international guidelines and benchmarks of materiality audit are not beneficial for Libyan auditors. In the research sample, 310 Libyan external auditors (91.2 per cent of the respondents) indicated that the international guidelines and benchmarks of materiality audit are not beneficial (strongly disagree or disagree) to Libyan auditors. However, less than eight per cent of the respondents agreed or strongly agreed with the benefits of international guidelines for materiality auditing to the Libyan auditors.

Therefore, in order to support the above results the following hypothesis was also tested by one sample t-test:

*H03*: There is no agreement that international guidelines and benchmarks are non-beneficial for making decisions to Libyan external auditors in their materiality decisions.

One sample t-test was employed to determine the benefits of international guidelines and benchmarks of materiality audit to Libyan auditors.

The results of one sample t-test (Mean = 2.19, Standards deviation = 0.664 and T-value = – 22.63) show the p-value (0.000) is less than 0.001 (statistically significant), and the mean value is less than 3. Therefore, the results rejected the null hypothesis and accept the alternative hypothesis that there is agreement that the international guidelines and
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benchmarks are not beneficial to Libyan external auditors in their materiality auditing decisions.

6.5.2.7 Factors that Make the International Guidelines and Benchmarks of Materiality Auditing Non-Beneficial to the Libyan Auditors

In order to achieve a comprehensive exploratory study (regarding benefits of the international accounting and auditing standards to Libyan auditors), the following question was also asked in order to explore the main factors that make the international materiality guidelines and benchmarks non-beneficial to the Libyan auditors.

For those who answered that the international materiality guidelines and benchmarks are not beneficial to Libyan auditors, please rank the factors (the difference between the Libyan economic system and other systems, the restrictions from national regulations for applying international accounting and auditing standards, the Libyan external auditors have no knowledge about international accounting and auditing standards and the social cultural reasons) that make international accounting and auditing standards non-beneficial to Libyan auditors (1 = most important to 5 = less important).

Friedman and Kendall’s W tests were used to rank the important factors that make the international materiality guidelines and benchmarks non-beneficial to Libyan auditors as shown in Table 6.10.
Table 6.10: Friedman Test and Kendall’s W-Test for the Non-Beneficial Factors in Using International Materiality Guidelines and Benchmarks in Libya

<table>
<thead>
<tr>
<th>Non-beneficial factors</th>
<th>Mean rank(^5)</th>
<th>Standard deviation</th>
<th>Friedman test</th>
<th>Kendall’s W tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>df</td>
<td>F-value</td>
</tr>
<tr>
<td>The differences between the Libyan economic system and other systems.</td>
<td>1.02</td>
<td>0.160</td>
<td>3</td>
<td>902.75</td>
</tr>
<tr>
<td>The Libyan external auditors have no adequate knowledge about international accounting and auditing standards.</td>
<td>2.00</td>
<td>0.235</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>The restrictions from national regulations and laws for applying international accounting and auditing standards.</td>
<td>3.02</td>
<td>0.160</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>The social and cultural reasons.</td>
<td>3.97</td>
<td>0.233</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

\(^*\)P-value < 0.001

From the results in Table 6.10, it is clear that the respondents have selected the differences between the Libyan economic system and other systems (such as Western economic systems that follow the international accounting and auditing standards) as the first important factor that makes the international materiality guidelines and benchmarks non-beneficial in Libya. The second factor relates to the lack of knowledge about international accounting and auditing standards held by the Libyan external auditors. The third important factor for the non-benefits of the international materiality guidelines and benchmarks in Libya is the restrictions from national laws and regulations while the fourth factor is the social and cultural reasons.

\(^5\) From 1.02 = most important to 3.97 less important
From the results in section 6.5.2 (Libyan external auditors attitude towards issues of materiality auditing), overall, it can be said that the Libyan external auditors were extremely interesting about materiality issue because they perceived the materiality concept as one of the most important issues in the auditing profession. They indicated that the materiality concept is very important in the auditing and external auditors should have responsibility in their materiality decisions.

6.5.3 Aspects that Have Been Concentrated to Assess the Materiality Decisions by the Libyan External Auditors

This section is focused on the second part of the survey to explore the main aspects of assessing materiality decisions that have been used by external auditors in Libya.

6.5.3.1 Materiality Auditing Decisions Based on the Ranking of User Groups of the Financial Statements in Libya

To investigate which user groups of financial statements have been targeted by the Libyan auditors when they make materiality decisions, the participants were asked to rank the primary user groups in their assessment of materiality decisions. (1 = most important to 5 = less important). Thus, the following hypothesis will be tested:

**H04: There are no significant differences between the Libyan external auditors about the ranking of user groups of financial statements during assessment of materiality decisions.**

In order to explore the rankings of user groups of financial statements, Friedman and Kendall’s W tests were employed, as shown in Table 6.11.
Table 6.11: Friedman Test and Kendall’s W Test for the Ranking of User Groups by the Libyan External auditors in their Materiality Decisions

<table>
<thead>
<tr>
<th>The user group</th>
<th>Mean rank ⁶</th>
<th>Standard deviation</th>
<th>Friedman test</th>
<th>Kendall’s W tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>df</td>
<td>F-value</td>
<td>P-Value</td>
<td>K-value</td>
</tr>
<tr>
<td>Tax authority</td>
<td>1.06</td>
<td>0.647</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The government and its agencies</td>
<td>1.61</td>
<td>0.627</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investors</td>
<td>3.02</td>
<td>0.399</td>
<td>3</td>
<td>753.60</td>
</tr>
<tr>
<td>Owners and managers</td>
<td>3.82</td>
<td>0.594</td>
<td></td>
<td>0.739</td>
</tr>
</tbody>
</table>

*P-value < 0.001

Table 6.11 presents the Friedman and the Kendall’s W tests regarding the rankings of user groups of the financial statements in Libya. As p-value (0.000) is smaller than 0.001 therefore, evidence has indicated that there is significant difference with regard to the ranking of user groups of financial statements from the Libyan auditors’ view.

The results of Friedman and Kendall’s W tests are provided as follows: the tax authority is the most influential user group of financial statements with a mean rank of 1.06 followed by the government and its agencies with a mean rank of 1.61 and then the investors group with a mean rank of 3.02. Finally, the owners and managers group was the least influential user group in the view of the Libyan external auditors with mean rank of 3.82. Therefore, there are statistically significant differences in the influence of user groups of financial statements (regarding the assessment for materiality decisions) and the alternative hypothesis can be accepted. These results reflect the emerging Libya stock market in which private investors are few in number with ownership and control dominated government agencies.

⁶ From 1.06 = most important to 3.82 = less important
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6.5.3.2 Materiality Auditing Decisions Based on Financial Statements in Libya

Four types of the financial statements were given to the respondents in order to investigate which one is more important in the materiality auditing decisions in Libya. To address that, the respondents were asked:

To what extent in your materiality decision do you place importance on following statements (Balance sheet, income statement, cash flow or notes to the financial statements)?

To test that, the following hypothesis was designed:

\[ H_0: \text{There are no differences in the importance of different financial statements used by Libyan external auditors during their assessment of materiality decisions.} \]

One sample t-test was employed to test to what extent the Libyan external auditors depend on the following financial statements in their materiality decision.

Table 6.12: One Sample T-test for Importance of the Financial Statements for Materiality Auditing Decisions

<table>
<thead>
<tr>
<th>Financial statement</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>T-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income statement</td>
<td>4.61</td>
<td>0.607</td>
<td>48.991</td>
<td>0.000*</td>
</tr>
<tr>
<td>Balance sheet</td>
<td>4.19</td>
<td>0.922</td>
<td>23.806</td>
<td>0.000*</td>
</tr>
<tr>
<td>Notes to the financial statements</td>
<td>3.16</td>
<td>0.911</td>
<td>3.124</td>
<td>0.001*</td>
</tr>
<tr>
<td>Cash flow statement</td>
<td>2.95</td>
<td>0.884</td>
<td>-0.981</td>
<td>0.001*</td>
</tr>
</tbody>
</table>

*P-value = 0.001

The results of the above test indicate that the income statement is the most important financial statement from the view of the Libyan external auditors in their assessment of materiality decisions with a mean 4.61 followed by the balance sheet with a mean of 4.19. The notes to the financial statements were the third important financial statements in materiality auditing decisions. Finally, the least important financial statement in materiality auditing decisions is cash flow statement.
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This leads to a rejection of the null hypothesis and an acceptance of the alternative one that expressed there are differences in the importance of different types of financial statements used by the Libyan external auditors during their assessment of materiality decisions. Therefore, the Libyan external auditors make their materiality decisions mainly based on the income statement, balance sheet and notes to the financial statements.

6.5.3.3 Materiality Auditing Decisions Based on Adequacy of the Past, Present and Future Information in the Financial Statements

The sufficiency of the information that has been provided by the financial statements will be investigated in this section. The participants have been asked:

To what extent they find the financial statements published by companies in Libya, provide adequate information for their decisions?

Descriptive analysis was employed and the results have been presented in Table 6.13.

<table>
<thead>
<tr>
<th>Adequacy of the information</th>
<th>The response</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make decisions based on the assessment of past information</td>
<td>Not adequate at all</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Not adequate</td>
<td>8</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>7</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>Adequate</td>
<td>306</td>
<td>90.0</td>
</tr>
<tr>
<td></td>
<td>Very adequate</td>
<td>18</td>
<td>5.2</td>
</tr>
<tr>
<td>Make decisions based on the assessment of current information</td>
<td>Not adequate at all</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Not adequate</td>
<td>57</td>
<td>16.8</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>29</td>
<td>8.5</td>
</tr>
<tr>
<td></td>
<td>Adequate</td>
<td>247</td>
<td>72.6</td>
</tr>
<tr>
<td></td>
<td>Very adequate</td>
<td>6</td>
<td>1.8</td>
</tr>
<tr>
<td>Make decisions based on the assessment of future information</td>
<td>Not adequate at all</td>
<td>4</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>Not adequate</td>
<td>95</td>
<td>27.9</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>200</td>
<td>58.8</td>
</tr>
<tr>
<td></td>
<td>Adequate</td>
<td>41</td>
<td>12.1</td>
</tr>
<tr>
<td></td>
<td>Very adequate</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
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Table 6.13 indicates that when making materiality decisions 324 respondents (95.2 per cent) relied on past information, 253 respondents (74.4 per cent) relied on present information and only 41 respondents (12.1 per cent) relied on the future information for making materiality decisions.

The next hypothesis was also designed to investigate this issue:

\textit{H06: There are no differences between the adequacy of past, present and future information in the financial statements from perspective of the Libyan external auditors.}

Table 6.14 shows the result of one sample t-test for the adequacy of the past, present and future information in the financial statements for making materiality auditing decisions.

<table>
<thead>
<tr>
<th>The decision</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>T-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make decisions based on the assessment of past information</td>
<td>3.98</td>
<td>0.444</td>
<td>40.865</td>
<td>0.000*</td>
</tr>
<tr>
<td>Make decisions based on the assessment of current information</td>
<td>3.59</td>
<td>0.795</td>
<td>13.640</td>
<td>0.000*</td>
</tr>
<tr>
<td>Make decisions based on the assessment of future information</td>
<td>2.82</td>
<td>0.644</td>
<td>−5.219</td>
<td>0.000*</td>
</tr>
</tbody>
</table>

*P-value < 0.001

Significant differences between adequacy of past, current and future information are shown in Table 6.14. There is a strong agreement in the adequacy of the past information for materiality decisions with a mean of 3.98 followed a mean sure of 3.59 for the adequacy of the current information. In contrast, the results show an inadequacy in the future information in order to make materiality decisions with a mean score of less than 3. Therefore, the alternative hypothesis is accepted that there is a significant difference between the adequacy of the past, present and future information in the financial statements for materiality decisions.
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The results of section 6.5.3 (aspects that have been concentrated to assess materiality auditing decisions) indicate that in general, there are significant differences about the sources of guidelines, ranking of user groups of financial statements, the types of financial statements and the sufficiency of past, present and future information in the financial statements by the Libyan external auditors with regard to materiality decisions.

6.5.4 The Quantitative Forms and Factors that Are Important for Materiality Auditing Decisions in Libya

The issue of quantitative forms and factors has been raised as the most important issue in materiality auditing for a long time in both developed and developing countries. Therefore, this section aims to investigate the important quantitative forms and factors that have been used by the Libyan external auditors in their materiality decisions. In order to explore the existing quantitative forms that have been used in Libya, the participants were asked four sub-questions about the quantitative materiality forms and factors in Libya.

6.5.4.1 The Proper Form for the Materiality Auditing Decision in Libya

There is no doubt that the form regarding materiality decision is a complicated issue in the auditing profession. Thus, one of the main aims in section 6.5.4 is to explore which of the existing forms of quantitative materiality provide adequate information for Libyan auditors. Therefore, the participants were given three existing quantitative forms and were asked:

Which forms provide adequate information for their materiality decisions?

The question will be addressed by the following hypothesis:

\[ H_0: \text{There are no differences between quantitative forms regarding the adequacy of information from the perspective of the Libyan external auditors in their materiality decisions.} \]

Three existing forms of quantitative materiality including absolute value of the item or items being audited, the items’ position in the financial statements and a percentage of the item or items being audited were given to the participants to determine which of them provide adequate information for materiality decisions. In addition, the respondents had the option to provide any other form of quantitative materiality factors.
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Before undertaking inferential tests, descriptive analysis was employed to discover the overview of the Libyan external auditors regarding the adequacy of forms for materiality auditing decisions. Table 6.15 shows the frequency of the responses about the proper forms of the materiality audit that provide adequate information for materiality decisions.

Table 6.15: Extent of the Adequate Quantitative Forms for Materiality Auditing Decisions

<table>
<thead>
<tr>
<th>The form</th>
<th>The response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The absolute value of the item or items being audited</td>
<td>Not adequate at all</td>
<td>23</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>Not adequate</td>
<td>115</td>
<td>33.8</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>7</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>Adequate</td>
<td>177</td>
<td>52.0</td>
</tr>
<tr>
<td></td>
<td>Very adequate</td>
<td>18</td>
<td>5.3</td>
</tr>
<tr>
<td>The items’ position in the financial statement</td>
<td>Not adequate at all</td>
<td>27</td>
<td>7.9</td>
</tr>
<tr>
<td></td>
<td>Not adequate</td>
<td>78</td>
<td>22.9</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>4</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>Adequate</td>
<td>226</td>
<td>66.5</td>
</tr>
<tr>
<td></td>
<td>Very adequate</td>
<td>5</td>
<td>1.5</td>
</tr>
<tr>
<td>A percentage of the item or items being audited</td>
<td>Not adequate at all</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Not adequate</td>
<td>46</td>
<td>13.5</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>7</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>Adequate</td>
<td>65</td>
<td>19.1</td>
</tr>
<tr>
<td></td>
<td>Very adequate</td>
<td>221</td>
<td>65.0</td>
</tr>
<tr>
<td>Other forms</td>
<td>-</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
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The findings in Table 6.15 indicate that the percentage of the item (or items) being audited provide the most adequate (adequate and very adequate) information for materiality decisions with 84.1 per cent of the responses. More specifically, 65.0 per cent of the participants responded that the percentage of the item (or items) being audited is a very adequate form with which to make materiality decisions and 19.1 per cent stated that it is an adequate form. The items’ position in the financial statement was the second most adequate form of the quantitative materiality factors with 68.0 per cent (66.5 per cent for adequate level and 1.5 per cent for a very adequate level). In accordance with the absolute value of the item or items being audited, 57.3 per cent of the participants accepted the absolute value as the form of quantitative materiality factors (52 per cent for adequate level and 5.3 per cent a very adequate level). The table also shows that there are no additional forms of quantitative materiality factors that were adopted by the Libyan external auditors.

In a similar way, one sample t-test was also applied to determine and support the above results about which forms can provide adequate information. The results from one sample t-test have been presented in Table 6.16.

<table>
<thead>
<tr>
<th>The form</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>T-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>The absolute value of the item or items being audited</td>
<td>3.15</td>
<td>1.150</td>
<td>2.453</td>
<td>0.015**</td>
</tr>
<tr>
<td>The items’ position in the financial statement</td>
<td>3.31</td>
<td>1.087</td>
<td>5.191</td>
<td>0.000*</td>
</tr>
<tr>
<td>The percentage of the item or items being audited</td>
<td>4.35</td>
<td>1.058</td>
<td>23.532</td>
<td>0.000*</td>
</tr>
</tbody>
</table>

*P-value < 0.001 and **P-value < 0.05

Similarly, the results from Table 6.16 show that there are differences between the quantitative forms regarding the adequacy of information. According to one sample t-test, the mean value of the percentage of the item or items being audited was 4.35 with standard deviation of
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1.058, t-value was 23.532 and the p-value was smaller than 0.001. This means the percentage of the item or items being audited have been selected as the most adequate form of quantitative materiality by Libyan external auditors. The items’ position in the financial statement took the second rank with a mean value of 3.31 and standard deviation of 1.087. The mean value of the form of the absolute value of the item or items being audited was 3.15 and its standard deviation was 1.150. Therefore, this form was considered the third most adequate form. Thus, it can be said that the outcomes from one sample t-test support the previous results from descriptive analysis (in Table 6.15) and reject the null hypothesis (H07). This means that there are differences between quantitative forms regarding adequacy of information for materiality auditing decisions from the perspective of the Libyan external auditors.

6.5.4.2 The Proper Amount for the Absolute Value as a Form of Quantitative Materiality Auditing Factors in Libya

Based on the previous question about the adequate information of the existing forms of the quantitative materiality factors, the following question was asked to explore the proper amount for the absolute value.

For participants who ticked the absolute value as an adequate or very adequate form, the proper amount of the absolute value has been asked.

As shown in Table 6.15, 195 participants indicated that the form of the absolute value is an adequate or very adequate proper form for materiality auditing decisions. Consequently, the frequencies of responses regarding the proper amount of the absolute value for materiality auditing decisions in Libya are presented in Table 6.17.
Table 6.17: Frequency of the Proper Amount of the Absolute Value as the Form of the
Quantitative Materiality Factors

<table>
<thead>
<tr>
<th>The proper amount</th>
<th>Number of the responses</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LYD1000</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>More than LYD1,000 and up to LYD 5,000</td>
<td>16</td>
<td>8.2</td>
</tr>
<tr>
<td>More than LYD 5,000 and up to LYD 10,000</td>
<td>43</td>
<td>22.1</td>
</tr>
<tr>
<td>More than LYD 10,000 and up to LYD 50,000</td>
<td>118</td>
<td>60.5</td>
</tr>
<tr>
<td>More than LYD 50,000</td>
<td>18</td>
<td>9.2</td>
</tr>
<tr>
<td>Other amount</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>195</td>
<td>100</td>
</tr>
</tbody>
</table>

More than a half of the respondents (60.5 per cent) have selected more than LYD 10,000 and up to LYD 50,000 as a proper amount for a material item. A total of 22.1 per cent of the respondents selected more than LYD 5,000 and up to LYD 10,000 as the proper amount. The lowest percentage was 8.2 per cent for the amounts of more than LYD 1,000 and up to LYD 5,000. No one selected LYD 1,000 as an important item.

As seen in the above discussion, the absolute value of LYD 5,000 ($3,922)\(^7\) and more is considered material by 91.8 per cent of participants that selected the form of absolute value for materiality decisions.

6.5.4.3 Items’ Position in the Financial Statements as a Form of Quantitative Materiality Factors in Libya

For participants who ticked the items’ position in the financial statement as adequate or very adequate form (231 participants, see Table 6.15), the next question was asked:

To what extent do you agree that the following items (cash, bank balance, total value of inventories, market value of inventories, net value of fixed assets, amount of intangible assets, total assets, total value of loans and long-term liabilities, stockholder equity, issued

\(^7\) \$1 = LYD 1.275 in 13 May 2013, http://www.oanda.com/currency/converter/.

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capital, revenue of the ordinary activity, revenue of extraordinary activity, total expenditures, total profits, net income, and accumulated depreciation for each item of fixed assets) affect your decision on materiality?

In this question, the mean values were used to evaluate the responses by descriptive analysis (see Table 6.19). However, before presenting the descriptive results, range and agreement degrees of the responses have been calculated in order to avoid any depending on the absolute values (see Pagano 2012) as shown in Table 6.18.

1. There are five-point scales (1 = strongly disagree, 2 = disagree, 3 = moderate, 4 = agree and 5 = strongly agree). Thus, the answers have been ranged from 1 to 5 and then obtained five intervals.

2. Find the range: highest value – lowest value = 5 – 1 = 4

3. Find the intervals width: \( \text{the range} \over \text{number of intervals} = 4 \over 5 = 0.8 \)

4. Degree of the agreement of the proper amount has been determined as shown in Table 6.18.

<table>
<thead>
<tr>
<th>Intervals width</th>
<th>Agreement’s degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0–1.8</td>
<td>Very low</td>
</tr>
<tr>
<td>1.8–2.6</td>
<td>Low</td>
</tr>
<tr>
<td>2.6–3.4</td>
<td>Moderate</td>
</tr>
<tr>
<td>3.4–4.2</td>
<td>High</td>
</tr>
<tr>
<td>4.2–5.0</td>
<td>Very high</td>
</tr>
</tbody>
</table>

The agreement’s degrees have been ranged from a very low agreement with interval width (mean value) from 1 to less than 1.8 to a very high agreement with interval width from 4.2 to 5.
Table 6.19: Descriptive Analysis of the Effects of the Items’ Position in the Financial Statement as an Adequate Form for the Materiality Auditing Decisions

<table>
<thead>
<tr>
<th>Items’ position</th>
<th>Mean</th>
<th>Degree of agreement</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total expenditures</td>
<td>4.87</td>
<td>Very high</td>
<td>97.4</td>
</tr>
<tr>
<td>Total value of inventories</td>
<td>4.82</td>
<td>Very high</td>
<td>96.4</td>
</tr>
<tr>
<td>Revenue of the ordinary activity</td>
<td>4.67</td>
<td>Very High</td>
<td>93.4</td>
</tr>
<tr>
<td>Net income</td>
<td>4.46</td>
<td>Very High</td>
<td>89.2</td>
</tr>
<tr>
<td>Net value of fixed assets</td>
<td>4.13</td>
<td>High</td>
<td>82.6</td>
</tr>
<tr>
<td>Cash</td>
<td>4.10</td>
<td>High</td>
<td>82.0</td>
</tr>
<tr>
<td>Total value of loans and long-term liabilities</td>
<td>4.08</td>
<td>High</td>
<td>81.6</td>
</tr>
<tr>
<td>Market value of inventories</td>
<td>3.42</td>
<td>High</td>
<td>68.4</td>
</tr>
<tr>
<td>Bank balance</td>
<td>3.24</td>
<td>Moderate</td>
<td>64.8</td>
</tr>
<tr>
<td>Total assets</td>
<td>3.20</td>
<td>Moderate</td>
<td>64.0</td>
</tr>
<tr>
<td>Revenue of the extraordinary activity</td>
<td>3.18</td>
<td>Moderate</td>
<td>63.6</td>
</tr>
<tr>
<td>Issued capital</td>
<td>3.17</td>
<td>Moderate</td>
<td>63.4</td>
</tr>
<tr>
<td>Stockholder Equity</td>
<td>3.13</td>
<td>Moderate</td>
<td>62.6</td>
</tr>
<tr>
<td>Accumulated depreciation for each item of fixed assets</td>
<td>2.81</td>
<td>Moderate</td>
<td>56.2</td>
</tr>
<tr>
<td>Total profits</td>
<td>1.96</td>
<td>Low</td>
<td>39.2</td>
</tr>
<tr>
<td>Amount of intangible assets</td>
<td>1.81</td>
<td>Low</td>
<td>36.2</td>
</tr>
</tbody>
</table>

Based on Tables 6.18 and 6.19, the outcomes were divided into four groups: very high level of the agreement, high level of the agreement, moderate level of the agreement and low level of the agreement as follows:

1. Four items’ positions obtained very high level of the agreement (as very effective factors for materiality decision): total expenditures, total value of inventories, revenue of the ordinary activity and the net income.

2. Four items’ positions obtained high level of the agreement: the net value of fixed assets, cash, total value of the loans and long-term liabilities and the market value of inventories.
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3. Six items’ positions obtained moderate level of the agreement: bank balance, total assets, revenue of the extraordinary activity, issued capital, stockholder equity and the accumulated depreciation for each item of fixed assets.

4. Two items’ positions obtained low level of the agreement: total profits and amount of intangible assets.

Further, one sample t-test was employed to test the next hypothesis and support the results that will be presented in Table 6.20:

**H08: There are no differences between effects of the items’ positions in the financial statements (as an adequate form) on the materiality auditing decisions.**

**Table 6.20: One Sample T-test for Effects of the Item’s Position in the Financial Statement as an Adequate Form on the Materiality Auditing Decisions**

<table>
<thead>
<tr>
<th>Item’s position</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>T-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total expenditures</td>
<td>4.87</td>
<td>0.358</td>
<td>73.814</td>
<td>0.000*</td>
</tr>
<tr>
<td>Total value of inventories</td>
<td>4.82</td>
<td>0.439</td>
<td>62.921</td>
<td>0.000*</td>
</tr>
<tr>
<td>Revenue of the ordinary activity</td>
<td>4.67</td>
<td>0.837</td>
<td>30.731</td>
<td>0.000*</td>
</tr>
<tr>
<td>Net income</td>
<td>4.46</td>
<td>0.508</td>
<td>43.646</td>
<td>0.000**</td>
</tr>
<tr>
<td>Net value of fixed assets</td>
<td>4.13</td>
<td>0.794</td>
<td>21.518</td>
<td>0.000*</td>
</tr>
<tr>
<td>Cash</td>
<td>4.10</td>
<td>1.071</td>
<td>15.540</td>
<td>0.000*</td>
</tr>
<tr>
<td>Total value of loans and long-term liabilities</td>
<td>4.08</td>
<td>0.761</td>
<td>21.595</td>
<td>0.000*</td>
</tr>
<tr>
<td>Market value of inventories</td>
<td>3.42</td>
<td>1.415</td>
<td>4.354</td>
<td>0.000*</td>
</tr>
<tr>
<td>Bank balance</td>
<td>3.24</td>
<td>1.244</td>
<td>2.960</td>
<td>0.000*</td>
</tr>
<tr>
<td>Total assets</td>
<td>3.20</td>
<td>0.940</td>
<td>3.288</td>
<td>0.000*</td>
</tr>
<tr>
<td>Revenue of the extraordinary activity</td>
<td>3.18</td>
<td>1.124</td>
<td>2.459</td>
<td>0.015**</td>
</tr>
<tr>
<td>Issued capital</td>
<td>3.17</td>
<td>0.933</td>
<td>2.749</td>
<td>0.006*</td>
</tr>
<tr>
<td>Stockholder Equity</td>
<td>3.13</td>
<td>0.669</td>
<td>3.050</td>
<td>0.003*</td>
</tr>
<tr>
<td>Accumulated depreciation for each item of fixed assets</td>
<td>2.81</td>
<td>1.139</td>
<td>-2.426</td>
<td>0.016**</td>
</tr>
<tr>
<td>Total profits</td>
<td>1.96</td>
<td>0.204</td>
<td>-77.747</td>
<td>0.000*</td>
</tr>
<tr>
<td>Amount of intangible assets</td>
<td>1.81</td>
<td>0.840</td>
<td>-21.378</td>
<td>0.000*</td>
</tr>
</tbody>
</table>

*P-value < 0.001 and **P-value < 0.05
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The results from one sample t-test in Table 6.20 supported the results from descriptive analysis regarding whether there are differences between the effects of the items’ position on the materiality auditing decisions from the perspective of the Libyan external auditors as follows: p-values were smaller than 0.05 for all items’ positions and there were significant differences between all mean values of the items’ positions.

Thus, the null hypothesis is rejected and the alternative hypothesis is accepted, which refers to significant differences between the effects of the items’ positions (as adequate or very adequate forms) on the materiality auditing decisions from the perspective of the Libyan external auditors.

6.5.4.4 Percentage of the Item or Items Being Audited as a Form for Materiality Auditing Decisions

For those who chose a percentage of the item or items being audited as an appropriate form for quantitative materiality factors (286 participants, see Table 6.15), the following question has been asked:

To what extent do you agree or disagree with the nine options of percentages of different items as an appropriate form for quantitative materiality and then if you either agree or strongly agree please indicate what would be the proper value of the percentage (five or ten per cent)?

This question will be evaluated by descriptive analysis. Moreover, the following hypothesis will be tested in order to validate the results of descriptive analysis:

\textit{H09: There are no differences between percentages of the relevant items as an adequate form of the quantitative materiality factors that are adopted by Libyan external auditors.}

Frequencies of the responses to the above question are presented in the Table 6.21.
As in the Table 6.21, nine options of percentages of different items were given to the respondents in order to determine which are more popular when making materiality decisions.
# Table 6.21: Frequencies of the Extent of the Agreement on Nine Options of Different Items and the Value of 10%

<table>
<thead>
<tr>
<th>Relevant criteria</th>
<th>Degree of agreement</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Frequencies of the relevant criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>The percentage of the item in the income statement relative to its group.</td>
<td>Agree and strongly agree</td>
<td>286</td>
<td>100.0</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>The percentage of the item in the balance sheet relative to its group.</td>
<td>Agree and strongly agree</td>
<td>286</td>
<td>100.0</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>The percentage of the item in the income statement relative to net income.</td>
<td>Agree and strongly agree</td>
<td>286</td>
<td>100.0</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>The percentage of reduction of the item’s account.</td>
<td>Agree and strongly agree</td>
<td>286</td>
<td>100.0</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>The percentage of the item in the balance sheet relative to the total assets.</td>
<td>Agree and strongly agree</td>
<td>133</td>
<td>46.5</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>The percentage of the item in the balance sheet relative to the working capital.</td>
<td>Agree and strongly agree</td>
<td>133</td>
<td>46.5</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10%</td>
</tr>
</tbody>
</table>
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| The percentage of the item in the income statement relative to net sales. | Agree and strongly agree | 41 | 14.3 | 5%  
| --- | --- | --- | --- | --- |
| The percentage of the item in the balance sheet relative to total capital. | Agree and strongly agree | 0 | 0.0 | 5%  
| The percentage of the item in the income statement relative to the total income. | Agree and strongly agree | 0 | 0.0 | 5%  

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The descriptive analysis reported that (in Table 6.21) the responses can be divided into three groups as follows:

1. The first group contains 286 respondents who agree and strongly agree (100 per cent of the respondents who ticked the percentage of item or items being audited as adequate or very adequate form) with four options: ‘the percentage of the item in the income statement relative to its group’, ‘the percentage of the item in the balance sheet relative to its group’, ‘the percentage of the item in the income statement relative to net income’ and ‘the percentage of reduction of the item’s account’.

2. The second group contains 133 respondents (46.5 per cent) who agree and strongly agree with two options: ‘the percentage of the item in the balance sheet relative to the total assets’ and ‘the percentage of the item in the balance sheet relative to the working capital’.

3. The third group contains 41 respondents (14.3 per cent) who agree and strongly agree with one option: ‘the percentage of the item in the income statement relative to net sales’.

In terms of the value of the proper percentage, it can be seen from Table 6.21 that the most respondents selected 10 per cent as a proper percentage under each option.

To confirm the above results, one sample t-test and Binomial test were also employed to test H09. As discussed in methodology chapter, one sample t-test and Binomial test can be used to find the significant differences between the responses about nine options. Therefore, one sample t-test has been employed to test whether there are significant differences between means of the responses regarding the percentages of different items.

In addition, Binomial test has been used to test the significant differences between the responses about the value of the proper percentage. The results from one sample t-test and Binomial test have been presented in Table 6.22.
Table 6.22 One Sample T-test and Binominal Test of Percentages of the Item or Items Being

<table>
<thead>
<tr>
<th>Relevant criteria</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>T-value</th>
<th>P-value</th>
<th>Percentage of the relevant criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>The percentage of the item in the income statement relative to its group.</td>
<td>4.77</td>
<td>0.415</td>
<td>72.497</td>
<td>0.000*</td>
<td>5% or 10%</td>
</tr>
<tr>
<td>The percentage of the item in the balance sheet relative to its group.</td>
<td>4.74</td>
<td>0.438</td>
<td>67.122</td>
<td>0.000*</td>
<td>5% or 10%</td>
</tr>
<tr>
<td>The percentage of the item in the income statement relative to net income.</td>
<td>4.65</td>
<td>0.477</td>
<td>58.426</td>
<td>0.000*</td>
<td>5% or 10%</td>
</tr>
<tr>
<td>The percentage of reduction of the item’s account.</td>
<td>4.54</td>
<td>0.499</td>
<td>52.247</td>
<td>0.000*</td>
<td>5% or 10%</td>
</tr>
<tr>
<td>The percentage of the item in the balance sheet relative to the total asset.</td>
<td>4.15</td>
<td>0.358</td>
<td>9.620</td>
<td>0.000*</td>
<td>5% or 10%</td>
</tr>
<tr>
<td>The percentage of the item in the balance sheet relative to the working capital.</td>
<td>4.14</td>
<td>1.423</td>
<td>9.266</td>
<td>0.000*</td>
<td>5% or 10%</td>
</tr>
<tr>
<td>The percentage of the item in the income statement relative to net sales.</td>
<td>3.6</td>
<td>0.882</td>
<td>7.555</td>
<td>0.000*</td>
<td>5% or 10%</td>
</tr>
</tbody>
</table>

* P-value < 0.001
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The above results from one sample t-test and Binominal test supported the previous results from the descriptive analysis in Table 6.21. The results indicate that according to the percentages of the item or items being audited the following options have almost unanimous agreement among the Libyan external auditors:

1. ‘The percentage of the item in the income statement relative to its group’ with a mean value of 4.77.
2. ‘The percentage of the item in the balance sheet relative to its group’ with a mean value of 4.74.
3. ‘The percentage of the item in the income statement relative to net income’ with a mean value of 4.65.
4. ‘The percentage of reduction of the item’s account’ with a mean value of 4.54.
5. ‘The percentage of the item in the balance sheet relative to the total asset’ with a mean value of 4.15.
6. ‘The percentage of the item in the balance sheet relative to the working capital’ with a mean value of 4.14.
7. The percentage of the item in the income statement relative to net sales’ with a mean value of 3.6.

The results suggest that the null hypothesis is rejected in favour of an alternative hypothesis and that there are differences between the percentages of the relevant items as an adequate form of quantitative materiality factors in the view of the Libyan external auditors.

In general, the results in section 6.5.4 (the quantitative forms and factors that are important for the materiality decision in Libya) confirm the most adequate quantitative form is ‘the percentage of the item/items being audited’ followed by ‘the items’ position in the financial statement’. The absolute value of the item or items being audited came as the least adequate form by the Libyan auditors with amounts of LDY 5000 ($3,922) and more.

6.5.5 The Qualitative Factors that Are Important for Materiality Auditing Decisions in Libya

In the context of the materiality auditing factors, the discussion about the qualitative factors has been raised to determine those factors that affect materiality decisions (as discussed earlier in the literature review chapter). For that reason, the goal of this section is to
investigate the important qualitative materiality factors from the perspective of the Libyan external auditors. In other words, it aims to explore the important qualitative materiality factors that have been used by the Libyan external auditors in their materiality decisions. Therefore, 24 of the existing qualitative materiality factors have been given to the respondents and the following question was asked:

To what extent do you agree the following qualitative factors affect decisions on materiality auditing?

In addition, the respondents were given the option to present any other qualitative materiality factors that were not included in the question.

Descriptive analysis was applied to explore the qualitative materiality factors that are adopted in Libya, as shown in Table 6.23.
### Table 6.23: Descriptive Analysis of the Effects of Qualitative Factors on Materiality

<table>
<thead>
<tr>
<th>The factor</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Degree of agreement</th>
<th>Responses’ percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>The nature of the entity’s activities</td>
<td>4.84</td>
<td>0.476</td>
<td>Very high</td>
<td>96.9</td>
</tr>
<tr>
<td>The industry in which the company operates</td>
<td>4.84</td>
<td>0.484</td>
<td>Very high</td>
<td>96.8</td>
</tr>
<tr>
<td>Corporate size</td>
<td>4.80</td>
<td>0.516</td>
<td>Very high</td>
<td>96.0</td>
</tr>
<tr>
<td>The result from previous audit found many errors or frauds</td>
<td>4.30</td>
<td>0.553</td>
<td>Very high</td>
<td>86.1</td>
</tr>
<tr>
<td>There has been a high turnover of top management in the past few years</td>
<td>4.27</td>
<td>0.645</td>
<td>Very high</td>
<td>85.4</td>
</tr>
<tr>
<td>In the past, management has been reluctant to accept your audit judgement</td>
<td>4.26</td>
<td>0.730</td>
<td>Very high</td>
<td>85.1</td>
</tr>
<tr>
<td>Disclosure requirements</td>
<td>4.26</td>
<td>0.551</td>
<td>Very high</td>
<td>85.1</td>
</tr>
<tr>
<td>There has been a high turnover of accountants in the past few years</td>
<td>4.22</td>
<td>0.669</td>
<td>Very high</td>
<td>84.4</td>
</tr>
<tr>
<td>Users of financial statements</td>
<td>4.22</td>
<td>0.590</td>
<td>Very high</td>
<td>84.4</td>
</tr>
<tr>
<td>This is the first year that your office/firm has conducted an audit of the company</td>
<td>4.19</td>
<td>0.942</td>
<td>High</td>
<td>83.8</td>
</tr>
<tr>
<td>Social and cultural influence (Voluntary disclosure)</td>
<td>4.16</td>
<td>1.077</td>
<td>High</td>
<td>83.3</td>
</tr>
<tr>
<td>Nature of the item</td>
<td>4.15</td>
<td>0.469</td>
<td>High</td>
<td>82.9</td>
</tr>
<tr>
<td>Efficient internal auditing</td>
<td>4.06</td>
<td>0.461</td>
<td>High</td>
<td>81.1</td>
</tr>
<tr>
<td>Accounting policies and regulations that have been used</td>
<td>4.00</td>
<td>0.529</td>
<td>High</td>
<td>80.1</td>
</tr>
<tr>
<td>Changing in accounting policies and the reasons</td>
<td>3.89</td>
<td>0.691</td>
<td>High</td>
<td>77.8</td>
</tr>
<tr>
<td>Your office/firm has audited the company for past few years and has not experienced any major errors or frauds</td>
<td>3.17</td>
<td>1.077</td>
<td>Moderate</td>
<td>63.4</td>
</tr>
</tbody>
</table>
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| Gender of the accountants (Male or female) | 3.14 | 1.113 | Moderate | 62.8 |
| Details of long-term debt | 2.34 | 0.843 | Low | 46.9 |
| Application of controlled or uncontrolled managerial policies | 2.13 | 1.110 | Low | 42.5 |
| Technological situation | 1.98 | 0.789 | Low | 39.6 |
| Description of major types of product information | 1.96 | 0.856 | Low | 39.2 |
| Details of revenue sources | 1.96 | 0.908 | Low | 38.4 |
| Information on corporate social responsibility | 1.90 | 0.810 | Low | 38.4 |

*In this table, the range and agreement degree have been calculated according to Pagano (2012) (see also Table 6.18).

The results from the descriptive analysis (as depicted in Table 6.23) indicate that the participants have divided the qualitative materiality factors into four main groups according to their degree of agreement. These included very high level of agreement, high level of agreement, moderate level of agreement and low level of agreement as follows:

1. Nine qualitative factors were given a very high level of agreement (with means value from 4.2 to 5): the nature of the entity’s activities, the industry in which the company operates, the corporate size, the result from previous audit found many errors or fraud, there has been a high turnover of top management in the past few years, in the past management has been reluctant to accept your audit judgement, disclosure requirements, there has been a high turnover of accountants in the past few years, and users of the financial statements.

2. Six qualitative factors were given a high level of agreement (with means from 3.4 to less than 4.2): this is the first year that the office/firm has conducted an audit of the company, social and cultural influence (voluntary disclosure), nature of the item, the efficient internal auditing, accounting policies and regulations that have been used, and changing in accounting policies and the reasons.

3. Only two qualitative factors were given a moderate degree of agreement (with means from 2.6 to less than 3.4): your office/firm has audited the company for past few years and has not experienced any major errors or frauds, and the gender of the accountants (male or female).

4. Seven qualitative factors have been given a low degree of agreement (with means from 1.8 to less than 2.6): description of method used to determine the cost of
inventories, details of long-term debt, application of the controlled or uncontrolled managerial policies, technological situation, description of major types of products information, details of revenue sources, and information on corporate social responsibility.

As mentioned above, the need for determining and understanding qualitative materiality factors has increased rapidly (see Thibodeau and Freier 2009). Therefore, the following hypothesis was also developed in order to determine whether there are significant differences between the responses relating importance of the qualitative materiality factors:

**H10: There are no different effects between the qualitative factors with regard to materiality auditing decisions from the view of the Libyan external auditors.**

Two types of inferential analysis were applied in order to address qualitative factors in materiality auditing decisions. Factor analysis was employed to categorise the important qualitative materiality factors followed by one-way ANOVA to determine whether there are significant differences between the main qualitative materiality factors in Libya. The results from the factor analysis will be presented in Table 6.25.

However, before presenting the factor analysis results, the study presented the basic requirements for this type of statistical technique (as discussed in the methodology chapter) in Table 6.24.

<table>
<thead>
<tr>
<th>Table 6.24 KMO and Bartlett’s Tests for the Research Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
</tr>
<tr>
<td>Bartlett’s Test of Sphericity</td>
</tr>
<tr>
<td>Df</td>
</tr>
<tr>
<td>Sig</td>
</tr>
</tbody>
</table>

As Table 6.24 shows, KMO value is more than 85 per cent, which indicated that the sum of correlation between the variables is at a high level. Bartlett’s test also tested the null hypothesis and indicated that the original matrix is an identity matrix. It means research data can be analysed by factor analysis.
Table 6.25: Factor Analysis for Effects of the Qualitative Factors on the Materiality Decisions

<table>
<thead>
<tr>
<th>The factor</th>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry in which the company operates</td>
<td></td>
<td></td>
<td></td>
<td>0.798</td>
</tr>
<tr>
<td>Nature of the entity’s activities</td>
<td></td>
<td></td>
<td></td>
<td>0.832</td>
</tr>
<tr>
<td>Corporate size</td>
<td></td>
<td></td>
<td></td>
<td>0.794</td>
</tr>
<tr>
<td>Application of controlled or uncontrolled managerial policies</td>
<td>0.716</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description of major types of products information</td>
<td>0.800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information on corporate social responsibility</td>
<td>0.886</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details of revenue sources</td>
<td>0.911</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details of long-term debt</td>
<td>0.808</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description of method used to determine the cost of inventories</td>
<td>0.770</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This is the first year that your office/firm has conducted an audit of the company</td>
<td></td>
<td></td>
<td></td>
<td>0.621</td>
</tr>
<tr>
<td>In the past, management has been reluctant to accept your audit judgement</td>
<td></td>
<td></td>
<td></td>
<td>0.696</td>
</tr>
<tr>
<td>There has been a high turnover of top management in the past few years</td>
<td></td>
<td></td>
<td></td>
<td>0.706</td>
</tr>
<tr>
<td>There has been a high turnover of accountants in the past few years</td>
<td></td>
<td></td>
<td></td>
<td>0.718</td>
</tr>
<tr>
<td>The result from previous audit found many errors or frauds</td>
<td>0.749</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Users of financial statements</td>
<td>0.688</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclosure requirements</td>
<td>0.622</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An interesting result shown in Table 6.25 is that factor analysis classified the qualitative materiality factors into three main important groups that had an acceptable coefficient of the correlation (more then 0.60) with the materiality variables.
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The researcher identified those groups based on their variables’ nature and summarised the results in the following way (ranking from the highest coefficient of correlation).

Group 1. Accounting policies, which include six qualitative factors:
   1. details of revenue sources with a correlation of 0.911
   2. information on corporate social responsibility with a correlation of 0.886
   3. details of long-term debt with correlation of 0.808
   4. description of major types of products information with a correlation of 0.800
   5. description of method used to determine the cost of inventories with a correlation of 0.770
   6. application of controlled or uncontrolled managerial policies with a correlation of 0.716.

Group 2. Auditing history and managerial policies of the company, which include seven factors:
   1. the result from previous audit found many errors or fraud with a correlation of 0.749
   2. there has been a high turnover of the accountants in the past few years with a correlation of 0.718
   3. there has been a high turnover of the top management in the past few years with a correlation of 0.706
   4. in the past, the management has been reluctant to accept your audit judgement with a correlation of 0.696
   5. users of the financial statements with a correlation of 0.688
   6. disclosure requirements with a correlation of 0.622
   7. this is the first year that your office/firm has conducted an audit of the company with a correlation of 0.621.

Group 3. Company’s characteristics, which include the following factors
   1. nature of the entity’s activities with a correlation of 0.832
   2. the industry in which the company operates with a correlation of 0.798
   3. corporate size with a correlation of 0.794.

The results from exploratory factor analysis indicated that the important qualitative materiality factors have been divided into three main groups from the view of the Libyan
external auditors: accounting policies, auditing history and managerial policies of the company and company’s characteristics. Moreover, in order to test H10 (whether there are different effects between the qualitative factors on the materiality auditing decisions), one-way ANOVA was employed to test the hypothesis from the perspective of the Libyan auditors using the responses about the three groups of qualitative factors. The findings from the one-way ANOVA are presented in Tables 6.26 and 6.27.

Table 6.26: One-Way ANOVA for Testing the Differences between Effects of the Main Groups of the Qualitative Factors on the Materiality Auditing Decisions

<table>
<thead>
<tr>
<th></th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1428.03</td>
<td>2</td>
<td>714.01</td>
<td>2063.64</td>
<td>0.000*</td>
</tr>
<tr>
<td>Within groups</td>
<td>351.90</td>
<td>1017</td>
<td>0.346</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1779.94</td>
<td>1019</td>
<td></td>
<td>2063.64</td>
<td>0.000*</td>
</tr>
</tbody>
</table>

*P-value < 0.001

Table 6.26 shows the results of the one-way ANOVA for testing the differences among the main groups of the qualitative factors regarding their effects on the materiality auditing decisions from the view of the Libyan external auditors (F = 2063.47 and p-value = 0.000). Therefore, significant differences between groups of qualitative factors about the effects on the materiality auditing decisions were obviously marked. In other words, the groups of qualitative factors have different effects on the materiality auditing decisions. This means that there are different important levels between these groups regarding affecting materiality decisions.

Moreover, to achieve comprehensive analysis of the effects of qualitative materiality groups, one-way ANOVA also tests the mean differences between these groups and then shows which of these groups has a strong effect, as shown in Table 6.27.
Table 6.27: Extent of Effects of the Main Groups of Qualitative Factors on Materiality Auditing Decisions

<table>
<thead>
<tr>
<th>Group (A)</th>
<th>Group (B)</th>
<th>Mean Difference (A–B)</th>
<th>P-value</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 3 (company’s characteristics)</td>
<td>Group 1 (accounting policies)</td>
<td>2.75049</td>
<td>0.000*</td>
<td>Group 3 has stronger effect than Group 1</td>
</tr>
<tr>
<td>Group 3 (company’s characteristics)</td>
<td>Group 2 (auditing history and managerial policies of the company)</td>
<td>0.58389</td>
<td>0.000*</td>
<td>Group 3 has stronger effect than Group 2</td>
</tr>
<tr>
<td>Group 2 (auditing history and managerial policies of the company)</td>
<td>Group 1 (accounting policies)</td>
<td>2.16660</td>
<td>0.000*</td>
<td>Group 2 has stronger effect than Group 1</td>
</tr>
</tbody>
</table>

*P-value < 0.001

Table 6.27 concludes the results from the one-way ANOVA. It pointed out different effects between groups of qualitative materiality factors (as in the above results) and explained which of these groups have a strong influence based on the means differences.

In comparing group 3 ‘company’s characteristics’ and group 1 ‘accounting policies’, it is clear that the company’s characteristics group has stronger effects than the accounting policies group on the materiality auditing decisions (p-value is 0.000 and mean difference is 2.75049). Similarly, it can also be seen that the company’s characteristics group has stronger effects than group 2 ‘auditing history and managerial policies of the company’ (see mean difference 0.58389). Finally, in comparing between group 2 ‘auditing history and managerial policies of the company’ and group 1 ‘accounting policies’ it can be seen that there is

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8 The positive value of the mean difference between A and B means that factor A has a stronger effect than factor B.
significant difference between their effects (p-value (0.000) is smaller than significant level (0.001)) and the group 2 is stronger than group 1 (see mean difference 2.166).

In order to obtain a quick overview of the differences among groups of the qualitative factors, the group’s means using one-way ANOVA are calculated and compared in Figure 6.1.

![Graph showing differences between groups of qualitative factors](image)

**Figure 6.1: The Differences Between the Effects of Groups of Qualitative Materiality Factors on the Materiality Auditing Decisions**

The above figure compares three main groups of qualitative factors presented by X axis; accounting policies (group 1), auditing history and managerial policies of the company (group 2) and company’s characteristics (group 3) with their means (presented by the Y axis). It can be seen that these groups clearly have different effects on materiality auditing decisions in Libya. It is clear that the company’s characteristics have the most effect (highest mean) followed by auditing history and managerial policies of the company while the accounting policies obtained the lowest effects (lowest mean) among the Libyan external auditors.
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From the above discussion, it can be confirmed that the group of company’s characteristics has the strongest effect on the materiality auditing decisions followed by group of auditing history and managerial policies of the company while the group of accounting policies has been ranked as the third group.

Generally, there is a strong consensus regarding significant different effects between the qualitative factors among the Libyan auditors. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted.

6.5.6 The Relationship between Quantitative and Qualitative Factors that Affect Materiality Auditing Decisions in Libya

Following the determination of the important quantitative factors and the main group of qualitative factors in Libya, the focus of this section has been moved to explore which type of those factors or groups have a strong impact on the materiality auditing decisions and whether the auditors should separate the quantitative from qualitative factors during the audit processes.

Thus, the purpose of this section is to address the following questions:

1. Which factors (quantitative or qualitative) have a strong impact on the materiality auditing decisions?
2. Is it necessary to separate quantitative and qualitative factors for materiality measurement?

Thus, the next two sections will investigate the above questions.

6.5.6.1 The Impact of Quantitative and Qualitative Factors on Materiality Auditing Decisions in Libya

To investigate the impact of the quantitative and qualitative factors, the participants were asked which factors (quantitative or qualitative) have a strong impact on the materiality auditing decisions.
Descriptive analysis and one-way ANOVA technique were employed to investigate this issue. Table 6.28 shows the frequency distribution of the responses about whether or not quantitative and qualitative factors have an impact on materiality auditing decisions.

**Table 6.28: Frequency of the Responses for Impact of the Quantitative and Qualitative Factors on the Materiality Auditing Decisions**

<table>
<thead>
<tr>
<th>The statement</th>
<th>The response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative factors</td>
<td>No impact</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Impact</td>
<td>340</td>
<td>100.0</td>
</tr>
<tr>
<td>Qualitative factors</td>
<td>No impact</td>
<td>5</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>Impact</td>
<td>335</td>
<td>98.3</td>
</tr>
</tbody>
</table>

The result from Table 6.28 showed that there is small difference between the impact of quantitative and qualitative factors on materiality auditing decisions. A total of 340 participants (100 per cent of the sample) agreed with the impacts of quantitative factors while 335 of them (98.3 per cent) agreed with the impacts of qualitative factors.

Further, in respect of the differences between those impacts, the following hypothesis was designed:

*H*11: There is no significant difference between the impact of quantitative and qualitative factors on materiality auditing decisions.

In other words, *H*11: \( \mu_1 = \mu_2 = \mu_3 = \mu_4 \)

Where: \( \mu_1 \) = the mean of the quantitative materiality factors, \( \mu_2 \) = the mean of the group 1 of qualitative materiality factors (accounting policies), \( \mu_3 \) = the mean of the group 2 of qualitative materiality factors (auditing history and managerial policies) and \( \mu_4 \) = the mean of the group 3 of qualitative materiality factors (company’s characteristics).
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For identifying qualitative factors that will be tested in this hypothesis, the responses based on factor analysis results, which divided and categorised the qualitative factors into three main groups will be used with the quantitative factors in this analysis.

One-way ANOVA was also used to test whether there was a significant difference between the impact of quantitative and qualitative materiality factors.

Table 6.29: One-Way ANOVA for Comparing the Different Effects of the Quantitative Factors and Three Groups of Qualitative Factors on the Materiality Auditing Decisions

<table>
<thead>
<tr>
<th></th>
<th>Sum squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1683.367</td>
<td>3</td>
<td>651.125</td>
<td>1808.174</td>
<td>0.000*</td>
</tr>
<tr>
<td>Within groups</td>
<td>420.804</td>
<td>1356</td>
<td>0.310</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2104.179</td>
<td>1359</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P-value < 0.001

According to the results in Table 6.29, significant differences were found between the quantitative and qualitative factors regarding their impacts on materiality auditing decisions where; F-value is 1808.174 and P-value is smaller than the significant level (0.01).

In addition, the following figure (6.2) shows obviously the differences between the impact of quantitative and qualitative factors on the materiality auditing decisions.
Figure 6.2 compares groups’ means presented by Y axis with the quantitative materiality factors (group 1) and three main groups of qualitative factors; the accounting policies (group 2), the auditing history and managerial policies of the company (group 3) and company’s characteristics (group 4) presented by X axis. Significant differences between these groups have been marked regarding their effects on materiality auditing decisions on Libya. More specifically, the group of company’s characteristics (group 4) is shown the strongest factors that affect materiality auditing decisions followed by the quantitative factors (group 1). The group 3 (auditing history and managerial policies of the company) is the third most important group while the accounting policies (group 2) is the lowest important group.

In terms of the different effect levels between the above groups, Table 6.30 will determine which groups have stronger impact than others do. Further, to achieve comprehensive analysis of the effects of the quantitative factors and three groups of qualitative materiality factors on the materiality auditing decisions, one-way ANOVA also tests the mean
differences between these groups and then shows which of these groups has a strong effect, as shown in Table 6.30.

**Table 6.30: Extent of Effects of the Quantitative Factors and Three Groups of Qualitative Factors on the Materiality Auditing Decisions**

<table>
<thead>
<tr>
<th>Group (A)</th>
<th>Group (B)</th>
<th>Mean Difference (A–B)</th>
<th>P-value</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 4 (company’s characteristics)</td>
<td>Group 1 (quantitative factors)</td>
<td>0.11078</td>
<td>0.047**</td>
<td>Group 4 has stronger effect than Group 1</td>
</tr>
<tr>
<td>Group 4 (company’s characteristics)</td>
<td>Group 3 (auditing history and managerial policies of the company)</td>
<td>0.58389</td>
<td>0.000*</td>
<td>Group 4 has stronger effect than Group 3</td>
</tr>
<tr>
<td>Group 4 (company’s characteristics)</td>
<td>Group 2 (accounting policies)</td>
<td>2.75049</td>
<td>0.000*</td>
<td>Group 4 has stronger effect than Group 2</td>
</tr>
<tr>
<td>Group 1 (quantitative factors)</td>
<td>Group 3 (auditing history and managerial policies of the company)</td>
<td>0.47311</td>
<td>0.000*</td>
<td>Group 1 has stronger effect than Group 3</td>
</tr>
<tr>
<td>Group 1 (quantitative factors)</td>
<td>Group 2 (accounting policies)</td>
<td>2.63971</td>
<td>0.000*</td>
<td>Group 1 has stronger effect than Group 2</td>
</tr>
<tr>
<td>Group 3 (auditing history and managerial policies of the company)</td>
<td>Group 2 (accounting policies)</td>
<td>2.16660</td>
<td>0.000*</td>
<td>Group 3 has stronger effect than Group 2</td>
</tr>
</tbody>
</table>

*P-value < 0.001, **P-value < 0.05
Chapter 6: Data Analysis and Research Results

Table 6.30 concludes the results from one-way ANOVA about the mean differences among groups of materiality factors in order to determine which group has a strong effect on the materiality auditing decisions.

Table 6.30 also shows that although all the groups have impacts on materiality auditing decisions (p-value is smaller than the significant level); there are significant differences between these impacts. Therefore, these groups of factors can be ranked according to high level of impacts as follows:

1. The company’s characteristics group
2. The quantitative factors group
3. The auditing history and managerial policies of the company group
4. The accounting policies group

6.5.6.2 Necessary Separation of Quantitative and Qualitative Factors for Materiality Auditing Decisions

The following question was asked to explore this issue from the Libyan auditors’ perspective:

Do you think it is necessary to separate quantitative and qualitative factors for materiality auditing decisions?

In this question, the respondents were asked to indicate their opinion regarding whether it is necessary to separate quantitative from qualitative factors for materiality auditing decisions. As Table 6.31 shows, descriptive analysis was used to identify if it is necessary to separate quantitative from qualitative factors.
Table 6.31: Frequency Distribution of the Responses Regarding the Necessity to Separate the Quantitative from Qualitative Factors for the Materiality Auditing Decisions

<table>
<thead>
<tr>
<th>The statement</th>
<th>Response</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is necessary to separate quantitative and qualitative factors for materiality auditing decisions</td>
<td>Not necessary</td>
<td>10</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>Necessary</td>
<td>330</td>
<td>97.1</td>
</tr>
</tbody>
</table>

The findings in Table 6.31 show that there is generally high consensus to separate quantitative from qualitative factors for materiality auditing decisions with 97.1 per cent of respondents believing it is necessary. Only 2.9 per cent of the respondents did not agree with that statement. Further, the following hypothesis was designed to address the above issue.

**H12: There is no necessity to separate the quantitative and qualitative factors for materiality auditing decisions.**

One sample t-test was employed in order to test H12 and the results found that the mean satisfaction with this statement was 4.48 out of 5, t-value was 37.348 and p-value was 0.000 (less than 0.001). This means the majority of responses came from respondents who strongly believed it is necessary to separate quantitative and qualitative materiality factors. Consequently, the null hypothesis is rejected and the alternative hypothesis is accepted, which expressed that it is necessary to separate the quantitative and qualitative factors for materiality auditing decisions.

According to the results in section 6.5.6 (the relationship between quantitative and qualitative factors that affect materiality decisions), quantitative and qualitative factors have significant impact on materiality auditing decisions. In addition, the group of company’s characteristics have the most effect followed by the quantitative factors and then the auditing history and managerial policies of the company. Accounting policies were considered the last group with regard to the effects on materiality auditing decisions. Moreover, the Libyan external auditors indicated that auditors should separate quantitative and qualitative materiality factors during their materiality decisions.
6.6 Conclusion

This chapter provided a comprehensive exploration and many results relating to materiality auditing in Libya. Table 6.32 presents the main findings from the data analysis and hypotheses tests.
### Table 6.32: The Main Findings from Data Analysis and Research Results

<table>
<thead>
<tr>
<th>The hypothesis</th>
<th>Accept/Reject</th>
<th>The reason</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H01a:</strong> There is no agreement between the Libyan external auditors that the concept of materiality is a difficult issue during the audit processes.</td>
<td>Rejected</td>
<td>The concept of materiality is a difficult issue in the audit processes.</td>
</tr>
<tr>
<td><strong>H01b:</strong> There is no agreement between the Libyan external auditors that the concept of materiality is an important issue during the audit processes.</td>
<td>Rejected</td>
<td>The concept of materiality is an important issue in the audit processes.</td>
</tr>
<tr>
<td><strong>H01c:</strong> There is no agreement between the Libyan external auditors that the auditors should have responsibility for making materiality auditing decisions.</td>
<td>Rejected</td>
<td>The auditors should have responsibility for making materiality auditing decisions.</td>
</tr>
<tr>
<td><strong>H02:</strong> No guidelines or benchmarks have been followed by the Libyan external auditors for making materiality decisions.</td>
<td>Rejected</td>
<td>There are some guidelines and benchmarks (international accounting and auditing standards, Arabic countries) have been followed by the Libyan external auditors for making materiality decisions.</td>
</tr>
<tr>
<td><strong>H03:</strong> There is no agreement that international guidelines and benchmarks are non-beneficial for making materiality decisions to Libyan external auditors in their materiality decisions.</td>
<td>Rejected</td>
<td>The international guidelines and benchmarks are non-beneficial to the Libyan external auditors in their materiality decisions.</td>
</tr>
<tr>
<td><strong>H04:</strong> There are no significant differences between the Libyan external auditors about the ranking of user groups of financial statements during their assessment of materiality decisions.</td>
<td>Rejected</td>
<td>Tax authority and the government are the most important user of financial statements in Libya. The Libyan external auditors in their materiality decisions.</td>
</tr>
</tbody>
</table>
### Chapter 6: Data Analysis and Research Results

<table>
<thead>
<tr>
<th>H05: There are no differences in the importance of different financial statements used by Libyan external auditors during their assessment of materiality decisions.</th>
<th>Rejected</th>
<th>Income statements and balance sheet from the view of Libyan external auditors in their materiality decisions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H06: There are no differences between the adequacy of past, present and future information in the financial statements in the view of the Libyan external auditors.</td>
<td>Rejected</td>
<td>The Libyan external auditors require information for making materiality decisions.</td>
</tr>
<tr>
<td>H07: There are no differences between quantitative forms regarding the adequacy of information from the perspective of the Libyan external auditors in their materiality decisions.</td>
<td>Rejected</td>
<td>The percentage of the item or items’ important quantitative forms followed by the items’ positions.</td>
</tr>
<tr>
<td>H08: There are no differences between effects of the items’ positions in the financial statements (as an adequate form) on the materiality auditing decisions.</td>
<td>Rejected</td>
<td>Total expenditures, total value of ordinary activity, net income, non-cash are the most important items in statements for making materiality decisions.</td>
</tr>
<tr>
<td>H09: There are no differences between the percentages of the relevant items as an adequate form of the quantitative materiality factors adopted by Libyan external auditors.</td>
<td>Rejected</td>
<td>The percentage of the item in the income statement relative to its group, percentage income statement relative to net reduction of the item’s account, percentages for making materiality decisions.</td>
</tr>
<tr>
<td>H10: There are no different effects between the qualitative factors with regard to materiality auditing decisions from the view of the Libyan external auditors.</td>
<td>Rejected</td>
<td>Company’s characteristics factors for materiality auditing decisions and auditing history of the company.</td>
</tr>
</tbody>
</table>
### Chapter 6: Data Analysis and Research Results

<table>
<thead>
<tr>
<th><strong>H11:</strong> There are no significant differences between the impacts of quantitative and qualitative factors on materiality auditing decisions.</th>
<th>Rejected</th>
<th>Company’s characteristics factors for materiality auditing decisions.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H12:</strong> There is no necessity to separate the quantitative and qualitative factors for materiality auditing decisions.</td>
<td>Rejected</td>
<td>There is necessity to separate the factors for materiality auditing decisions.</td>
</tr>
</tbody>
</table>

Table 6.32 shows that the Libyan external auditors are concerned about materiality auditing despite the fact that they use international guidelines and benchmarks.
Chapter 7: Discussion and Conclusion

7.1 Introduction

This chapter is divided into three main sections. The first section reviews the research problem and summarizes the research questions. The second, section discusses the empirical evidence that has been obtained regarding the materiality auditing issue from a view of the Libyan external auditors. The discussion section reviews and evaluates the research results in order to answer and evaluate upon the research questions and hypotheses.

The third section conclusion contains summary, contribution, limitation and suggestions for future research. This part outlines the main findings and the contributions obtained by this research. In addition, it presents the limitations of the research that lead to valuable recommendations for future materiality auditing research.

7.2 Overview of the Research and Summary of the Research Problem

As discussed in previous chapters, this study aims to explore the main issues of materiality auditing from the perspective of the Libyan external auditors. Therefore, the research problem has been addressed according to the main question as follows:

What are the main issues in materiality auditing in Libya from the perspective of the Libyan external auditors?

In addition, the research question was divided into specific sub-questions in order to achieve a comprehensive understanding regarding these issues. Therefore, the following aspects of the materiality auditing have been investigated through this study:

1. the auditors’ view about the materiality auditing issues in Libya
2. the main sources of materiality guidelines in Libya and whether they are beneficial to the Libyan external auditors
3. quantitative materiality forms and factors that have been concerned
4. qualitative factors that have been concerned in the materiality auditing decisions
5. the relationship between the quantitative and qualitative materiality factors.
Further, this study introduced a descriptive overview of the Libyan external auditors’ background, which is related to the research issue.

7.3 Discussion

The previous chapter answered the questions about the Libyan external auditors’ background, a view of the Libyan auditors towards materiality concept, aspects that have been focused by the Libyan auditors in their materiality decisions and quantitative and qualitative materiality factors, and their impacts on the materiality decisions. This section aims to discuss these answers and findings.

7.3.1 Libyan External Auditors’ Characteristics

Approximately 90 per cent of the respondents (Libyan external auditors) were males. This is because the Libyan culture does not encourage females in accounting and auditing profession (World Trade Press 2010). The average level of education of the Libyan auditors is a bachelor degree. This level reflects the minimum requirements as an external auditor that has been set by the LAAA (2011). The average range of their experience as the external auditors is between five and 20 years.

In terms of the audit education and professional qualification, foreign political policies in Libya negatively affected obtaining international qualification in auditing profession as well as the other sciences during Alqadhafi regime (1969–2011). As discussed in the Libyan context, Alqadhafi’s ideology especially his political policies created many complex crises between Libya and numerous countries around the world. Consequently, that situation placed Libya under the international embargo (1992–2003), which impacted the education sector (St John 2003; Vandewalle 2012). Therefore, from the research sample, it can be seen that less than 10 per cent of the participants graduated from universities in Western countries and only 6.2 per cent hold professional qualifications from Western auditing bodies.

According to the auditors background, more than 93 per cent of the Libyan external auditors work in governmentnal audit offices (the Libyan Audit Bureau) or in private local audit firms rather than in international accounting firms. Moreover, regarding specialisation as an
external auditor, the Libyan external auditors have more experience in the services and nutrition industries rather than in oil and steel industries, which are the major industrial sectors in Libya. This is because some activities of the oil and steel industries are operated by multinational corporations that require international accounting firms to audit their activities (Mashat 2005). This can explain the low percentage of the Libyan external auditors who have experience in the oil industry (5.6 per cent).

7.3.2 Materiality Auditing Issue from the Libyan External Auditors’ Perspective

The importance of discussion of the Libyan auditors’ opinions towards materiality auditing has been derived from the need for exploring these views relating to the importance, difficulty and responsibility of materiality auditing. In addition, the source of materiality auditing guidelines and whether these guidelines are beneficial to the Libyan business environment have been discussed. These views justify the need for this study.

7.3.2.1 Importance, Difficulty and Responsibility of the Materiality Auditing

The empirical results from this research indicated that the participants show a strong concern for the materiality issue. These findings consist with current auditing literature that materiality concept is the most important issue in auditing profession (Emil et al. 2010; Manita et al. 2011; Budescu et al. 2012). According to Emil et al. (2010, p. 274) ‘the incorrect of materiality can have serious negative repercussions on both the audited entity and auditor (Enron-Anderson)’. Therefore, Libyan external auditors believe that materiality concept is a very important concept in auditing processes with auditors having a high responsibility to provide material information that affects financial statement results. The Libyan external auditors also stated that by providing clear guidelines for the materiality auditing decisions, they can obtain more confidence and trust from user groups of the financial statements and legal protection.

However, currently, the Libyan external auditors still face difficulties in terms of the materiality auditing decisions. The reason is that there are no obvious or applicable auditing regulations and standards that guide them during the auditing process, particularly, in their materiality decisions.
Chapter 7: Discussion and Conclusion

7.3.2.2 Source of Materiality Auditing Guidelines and its Benefits to the Libyan Business Environment

The literature review of the current Libyan auditing situation and the empirical study of this research indicated that although the Libyan external auditors have followed the international accounting and auditing standards as the guidelines for materiality decisions, they do not prefer that source. According to the Libyan auditors, the LAAA must have a responsibility for materiality guidelines. The reason is that these guidelines must derive from a national environment especially when there is a significant difference between the countries regarding their business situations (Wallace 1999; Solodchenko and Sucher 2005).

The findings indicate that the international accounting and auditing standards (Western standards) are not beneficial to the Libya external auditors especially in their materiality decisions. The type of Libyan economic system and the Libyan external auditors’ background (related to international accounting and auditing standards) are the main factors that make these standards non-beneficial to make materiality decisions in Libya. More specifically, as discussed earlier regarding the Libyan economic context, Libya’s economy adopted a public economic model (fewer user groups of the financial statements) while the international accounting and auditing standards derived from the capital market of economy in Western world (many user groups of the financial statements). Libyan economic studies stated that there is a significant difference between the Libyan business environment and the Western environment (Hamed 2009). In addition, a lack of an adequate accounting and auditing education regarding the materiality auditing was one of the main factors that make these guidelines non-beneficial to Libyan environment (Misurata University 2012).

In Libya, current auditing education suffers from a lack of sufficient auditing syllabuses regarding the materiality issue. According to the department of accounting at Misurata University, students are required to study only two auditing courses towards a bachelor of accounting. However, these courses do not provide adequate knowledge about materiality auditing, its concept and factors (Misurata University 2012). The first unit, Auditing 433, has been designed to provide basic knowledge about the auditing profession. It contains six chapters: introductory auditing, auditing ethics, internal control, audit evidence and assertion, audit planning and internal audit. The second unit, Auditing 434, aims to provide practical understanding of auditing profession. The unit introduces five topics: auditing assets, auditing
Chapter 7: Discussion and Conclusion

liabilities, auditing capital, auditors’ legal responsibilities and analytical audit, and auditing the revenue and expenditure. Conversely, by a quick overview of these courses, it can be seen that there is no specific topic for materiality auditing and its issues.

7.3.3 Libyan External Auditors’ Concern during their Materiality Decisions

This section discusses the main themes that have been concerned and used by the Libyan external auditors in order to make materiality decisions.

7.3.3.1 User Groups of the Financial Statements

The type of user groups of the financial statements remains as one of the most important issues in order to define material information. This is because auditors have found themselves facing different needs of user groups of the financial statements (managers, shareholders, investors, government, and banks). It has been classified as one of the qualitative factors that affect materiality audit (American Institute of Certified of Public Accountants 2006).

In Libya, the research findings indicate that the tax department is the main user group of the financial statements followed by other governmental agencies such as the ministry of finance. Finally, the investors and managers came as the last ranking in list of the user groups of the financial statements in Libya. Once again, the impacts of the economic policy (considered public sector on tax issue) on the classification of the user groups of the financial statements as well the auditing profession can be seen.

7.3.3.2 Types of the Financial Statements and Information that Have Been Used by the Libyan External Auditors in their Materiality Decisions

Following determination of the user groups of the financial statements in Libya, the main financial statements and the information that have been focused by the Libyan external auditors in their materiality decisions are discussed. Consistent with previous Libyan literature stating that the main user group of the financial statements is the Libyan tax department, the income statements came as the main financial statement from a view of the Libyan auditors (Aldarwish and Alghali 2006; Ellabbar 2007). Therefore, a significant
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relationship can be noted between user groups of the financial statements and the types of financial statements that have been used by the Libyan external auditors.

In other words, the auditors’ major interest is to determine whether the income statements are free from the errors or frauds in order to assist the tax authority (internal objective) to determine an amount of tax. This can also be supported by the Libyan auditors’ views regarding adequacy of the past, present and future information in the financial statements. They indicated that their materiality auditing decisions rely on the past information that relied upon to income statement. Moreover, the balance sheet and notes to the financial statements have also been used to make materiality decisions but not the cash flow statements.

7.3.4 The Quantitative Materiality Forms and Factors that Have Been Used by the External Auditors in Libya

This part of the research provides a comprehensive exploration of the quantitative materiality forms and factors from the view point of Libyan external auditors. It aims to explore the important quantitative form that has been used by the Libyan external auditors. Therefore, three common forms of quantitative materiality auditing (an absolute value of the item being audited, position of the item in the financial statement and the percentage of the item being audited) have been given to the research sample. The findings from the descriptive analysis and one sample t-test indicated that all three forms are accepted by the respondents. More specifically, the percentage of the item being audited was selected as the most important quantitative form followed by the positions of the item in the financial statements. The absolute value of the item being audited came as the last quantitative form, which can also be used by the Libyan external auditors in their materiality decisions with amounts that is more than LYD 5,000 ($3,922).

In the past, the auditing research has paid little attention to the absolute value, as it is difficult to assess the material item based on its absolute value. However, recent auditing studies have raised the question regarding the importance of the absolute value as a quantitative form in the materiality auditing decisions (Brody et al. 2003; Brennan and Gray 2005; Rezaee and Riley 2010). In their study ‘Could $51 Million Be Immaterial When Enron Reports Income of $105 Million’, Brody et al. (2003) stated that, in the case of the collapse of Enron, one of the biggest errors was the ignorance of $51 million as an immaterial amount by Arthur
Chapter 7: Discussion and Conclusion

Andersen (one of the Big Five accounting firms that audited Enron Company). The above study also stated that after the recent financial scandals it is becoming increasingly difficult to ignore the role of an absolute value of the item in materiality auditing decisions. Therefore, the Libyan external auditors believed that the absolute value of the item in the financial statement could be considered in the materiality auditing decisions.

With regard to the position of the item in the financial statement, this form came as the second important form in Libya. This form included 17 positions that can affect the materiality decisions (Iyer and Whitecotton 2007). According to the results of this research, the total expenditures, value of the inventories, revenue from the ordinary activity and the net income are very important items’ positions in the financial statements for materiality auditing decisions from a view of the Libyan external auditors. The reason is that these items’ positions are subjected to the errors and frauds in the Libyan financial statements (Organization of Transparency Libya 2007). This is to say, these positions strongly affect the financial statements’ results and then they are subject to the errors and fraud. Moreover, followed by the above items’ positions, the respondents selected other items’ positions from the balance sheet such as the net value of fixed assets, cash, total value of long-term liabilities and the bank balance as important item’s positions for materiality decisions.

However, one important observation is that there is little attention has been paid to the total profit and amount of intangible assets as important items by the respondents. This issue has been derived from the economic system and the accounting policy in Libya. Ellabbar (2007) found that there were 22 items including the intangible assets and extraordinary items that have not been disclosed in the Libyan financial statements.

In terms of the most important quantitative forms and factors from the view of the Libyan external auditors, the percentage of item being audited came as the main form that has been used. The results indicate that there are seven important percentages of the items being audited (with 10 per cent as a proper percentage) that can be used to determine the material items in the financial statements. Further, four percentages of items being audited obtained level of agreement with 100 per cent by the respondents. These percentages are the percentage of the item in the income statement relative to its group, the percentage of the item in the balance sheet relative to its group, the percentage of the item in the income statement relative to the net income and the percentage of reduction of the item’s account.
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These findings are consistent with the accounting and auditing literature (Nelson et al. 2005; Acito et al. 2009).

From the research findings (regarding the item’s position and the percentage of item being audited as quantitative forms), it can be seen that all four items’ positions and four percentages of items being audited (that are ranked by the Libyan external auditors as important forms in their materiality decisions) are derived from the income and the balance sheet statements. Obviously, the findings from the quantitative forms and factors support the findings from the important type of financial statements. Both results indicated that from the Libyan external auditors’ perspective, the most important statements are the income and balance sheet statements for materiality auditing decisions.

7.3.5 The Qualitative Materiality Auditing Factors that Have Been Used in Libya

Discussion regarding the qualitative factors in materiality auditing decisions has raised alarming issues to pay more attention to these factors (Corte et al. 2010; Emil et al. 2010; Manitaa et al. 2011; Rittenberg et al. 2011). Following the big financial scandals such as the bankruptcy of the Enron Corporation in 2003 and Lehman Brothers Bank in 2008, some studies argued that a focus on only quantitative materiality factors led to an absence of a clear understanding of other important factors that also have a significant effect on materiality auditing decisions (Bu-Peow et al. 2007; Corte et al. 2010). This means that it is no longer possible to ignore the impact of qualitative factors on materiality auditing decisions.

Therefore, this research undertook an exploration of qualitative factors used by Libyan external auditors. The interesting research result in this regard is that the Libyan external auditors have paid more attention to the qualitative than quantitative factors during their materiality decisions as it was presented in the previous chapter. The qualitative materiality factors in this study included 24 elements that have been derived from the existing auditing research (Hao 2006; Puttick et al. 2007; Leung et al. 2011).

According to the research findings, 16 qualitative factors were selected as very important or important factors for materiality auditing decisions by Libyan external auditors. Based on the nature and characteristics of these factors, the researcher classified them into three groups: accounting policies, which includes six qualitative factors; auditing history and managerial
Chapter 7: Discussion and Conclusion

policies of the company, which includes seven factors; and company’s characteristics, which includes three factors.

The research findings strongly supported the important qualitative factors such as the nature of the entity’s activity, the type of industry and corporate size (company’s characteristics), which have also been accepted by the previous auditing research (Thibodeau and Freier 2009; Emil et al. 2010; Manitaa et al. 2011). The participants ranked this group as the most important qualitative materiality factors. It can be explained that the importance of these factors in the materiality auditing decisions is based on the Libyan economic system. St John (2008) investigated the causes and consequences of the changes in the Libya’s economy such as size of companies. He stated that the Libyan business environment has suffered from serious problems such as a lack of adequate information and corruption. St John (2008b) also indicated that five main economic sectors of Libya including energy, construction, agriculture, tourism and trade have been reformed due to the private programs.

In terms of the managerial policy, factors such as high turnover of top management in the past few years, high turnover of the accountants in the past few years and the relationship between managers and the external auditors have also been selected as important factors for making materiality decisions. It is clear that these factors also related to the Libyan business environment. As mentioned above, the Libyan business environment faced many changes in its policies and structures (Otman and Karlberg 2007). According to the Organization of Transparency Libya (2007), different levels of the managers and accountants witnessed a high turnover rate during last three decades. Based on this situation, Libyan auditors need to consider the impacts of the high turnover rate on their materiality decisions. In other words, the increased turnover rate in high-level management and accounting positions could conceal material errors and frauds in the financial statements.

Finally, the factors related to accounting policy group came as less important than other groups of the qualitative materiality factors. The main reason is that the Libyan external auditors believe that there are no clear accounting policies that can be followed by the preparers of the financial statements. Therefore, these policies have less effect on the materiality decisions.
Chapter 7: Discussion and Conclusion

7.3.6 The Relationship between the Quantitative and Qualitative Factors Regarding the Materiality Auditing Decisions and Necessity of the Separation

The relationship between the quantitative and qualitative factors has been studied as a new trend in the auditing materiality research (Emil et al. 2010; Zakari and Menacere 2012). This is because current auditing research raise questions about the extent of the effects of both quantitative and qualitative factors on the materiality auditing decisions. In addition, some research argued the necessity of the separation of the quantitative and qualitative materiality factors (Puttick et al. 2007). Thus, it can be said that this thesis makes a significant contribution to auditing research relating to one of the materiality issues (the relationship between quantitative and qualitative factors and whether there is necessary to separate them).

In general, using descriptive analysis, the research findings indicated that both quantitative and qualitative factors have significant effects on the materiality auditing decisions in Libya. However, by applying inferential statistical techniques, different impacts of these factors have been remarked. In addition, in order to achieve significant results, the study tests the effectiveness of the quantitative factors and three groups of qualitative factors (three groups categorised by the factor analysis method in data analysis chapter) on the materiality auditing decisions. The findings pointed out that the group dealing with company’s characteristics have the most effect on the materiality auditing followed by the quantitative factors. The third most effective group was the auditing history and managerial policies of the company followed by the last group, which was group of the accounting policies. The ranking of the quantitative and qualitative factors on the materiality auditing decisions is displayed in Figure 7.1.
Figure 7.1: Ranking of the Quantitative and Qualitative Factors Regarding the Impact on the Materiality Auditing Decisions in Libya

The above results (relationship between quantitative and qualitative materiality factors) can be interpreted and supported by the previous research findings as the following points:

1. The qualitative factors that related to the group of the company’s characteristics have become the most important factors from a view of the Libyan external auditors in their materiality auditing decisions. This group includes nature of activity, industry and the company’s size factors, which is directly related to the Libyan business environment. Previous studies in Libya concluded, despite the financial sector becomes a major economic sector, the sector has suffered from an inadequate financial system. For example, Porter and Yergin (2006) stated that although total assets of the Libyan banking sector was LYD 17.6 billion in 2004, there was absence of adequate payments systems. In addition, the reason for depending on company’s characteristics for materiality auditing decisions is the relationship between the expenditures and nature of the company. Moreover, the absence of clear national accounting and auditing standards also caused more reliance on these qualitative factors (nature of activity, industry and the company’s size) for materiality auditing decisions.
Chapter 7: Discussion and Conclusion

2. Following the company’s characteristics, the quantitative factors that include the absolute value, the items’ positions in the financial statements and the percentage of item being audited have been selected as the important materiality factors. In addition, all these factors have been related to the main items in the income and balance sheet statements. This is the result of emphasise of state’s laws and regulations on the issue of taxes.

3. The respondents also selected a group of the qualitative factors related to the managerial polices as the third important factors in materiality decisions. The instabilities in the Libyan political and economic policies and ultimately business environment factors cause the high turnover in the management’s levels and accounting positions. This gives signals to auditors for possibilities of errors and fraud.

4. A group of accounting policies came as the fourth and last group affecting materiality auditing decisions that can be explained as a lack of obvious accounting policies and guidelines in Libya. Thus, the Libyan external auditors could not rely on the accounting regulations, policies and standards in their materiality decisions. This is one of the negative impacts of the absence of national auditing regulation and guidelines.

In the context of separation of quantitative and qualitative factors, the respondents strongly agreed with a necessity for separation. This finding is also being supported by the current auditing research towards this issue. Recent developments in the auditing studies have highlighted the importance of the qualitative factors as well quantitative factors and the need for separating those factors (Puttick et al. 2007; Leung et al. 2011). This means that the auditors should understand and follow both quantitative and qualitative materiality factors in their materiality decisions.

7.4 Conclusion

The conclusion section is divided into the following sub-sections. Section 7.4.1 summarises the major research results, section 7.4.2 presents the main contributions of this thesis, section 7.4.3 shows the limitation and restrictions of the research, and section 7.4.4 recommends a number of future research ideas that could be complementary studies to this thesis.
Chapter 7: Discussion and Conclusion

7.4.1 Summary

This research reviewed the existing accounting and auditing literature relating to the materiality issue. In addition, empirical investigation was employed to explore the research problem as a case study in Libya. The major research results are summarised as follows.

The participants of this thesis (Libyan external auditors) believe that materiality auditing is the most important issue in the auditing profession. They also indicated that the main difficulty of the materiality issue is an absence of clear sources of guidelines for making materiality decisions. Further, the Libyan external auditors agree with the necessity to have responsibility in their materiality decisions.

The results from this thesis found that there are no clear guidelines for making materiality auditing decisions. In addition, according to these results the international accounting and auditing standards are not beneficial to the Libyan auditors because of the differences between the Libyan economic system (relied on public sector) and the objectives of these international standards (relied on private sector).

The income statements and balance sheets are the most important statements for making materiality auditing decisions in Libya. In additions, the Libyan external auditors consider the tax department and the governmental agencies as the main user group of financial statements in their materiality decisions.

In Libya, external auditors have adopted three quantitative forms underlying materiality decisions: an absolute value, the items’ position in the financial statements and the percentage of item being audited in order to determine the material information. The item that has a value of LYD 5,000 ($3,922) and more has been accepted as an important item.

With regard to the items’ positions, most items’ positions that are affected the materiality auditing were derived from the income statements such as the total expenditure, inventory value and the revenue from ordinary activities. In addition, items from the balance sheet such as total value of long-term liabilities and cash account were selected as the most effective item’s positions on the materiality auditing decisions.
Chapter 7: Discussion and Conclusion

Four types of percentages of the item being audited were selected as the most important quantitative factors that affect materiality auditing decisions. They are the percentage of the item in the income statement relative to its group, the percentage of the item in the balance sheet relative to its group, the percentage of the item in the income statement relative to net income, and the percentage of reduction of the item’s account. In addition, the participants also ranked additional three types of percentages as the effective factors on the materiality auditing decisions. These three percentages are the percentage of the item in the balance sheet relative to its total assets, the percentage of the item in the balance sheet relative to the working capital and the percentage of the item in the income statement relative to the net sales.

The results relating to the important qualitative factors in the materiality auditing decisions have been identified based on two main points:

1. In Libya, the qualitative materiality factors have been strongly influenced by the local business environment (e.g., economic and managerial situation). The nature of company’s activity, the company size and the rate of the employees’ turnover were among important qualitative factors in Libya.

2. The study was able to categorise these factors into three main groups relating the Libyan business environment including the company’s characteristics, managerial policies and accounting policies groups.

Among auditing research literature, there has been a little attention to identify whether the quantitative and qualitative factors differ in their impacts on the materiality auditing decisions and whether there is necessary to separate these factors. However, this research was able to address this issue. The research results evidently show that there are systematic differences among the quantitative and qualitative factors in impacting on materiality auditing decisions. One of the interesting results of this study is that the group of the company’s characteristics (qualitative factors) was classified as the most important group that affect the materiality auditing decisions in Libya. The group of the quantitative factors (absolute value, items’ position in the financial statements, and the percentage of the item being audited) has come as the second main group regarding the impacts on the materiality auditing decisions. The third important group includes the factors that related to the managerial polices (qualitative factors). Finally, the qualitative factors that were derived from the accounting policies seized the last rank in regard to the impact on the materiality auditing decisions.
Chapter 7: Discussion and Conclusion

7.4.2 Research Contribution

There is ongoing need for Libyan auditing research relating to specific issues (regulations, concepts, framework and impacts of the business environment). This research undertook to explore one of the important issues: the materiality auditing decisions. Consequently, it can be said that this work is a ground-breaking study since it provides a comprehensive investigation of the materiality auditing in Libya and the following contributions were achieved.

1. This thesis is the first attempt to provide a comprehensive background relating to the materiality auditing in Libya. In addition, the results from this study will be beneficial not only to Libya, but also to all developing countries in a similar situation.

2. The literature has discussed the significant differences among the developed and developing countries relating to the business environment (political, economic and social factors) and the impacts on the auditing profession. The finding of this study provides an understanding of the impacts of the country specific business environment on the Libyan auditing profession especially, materiality auditing decisions.

3. Concerning the quantitative forms and factors that affect materiality auditing decisions in Libya, this research provides specific contribution to the literature relating to this issue. More specifically, the results about the quantitative forms are able to offer significant contribution to the recent auditing research, especially in terms of absolute value.

4. The study also undertook to explore the qualitative materiality factors and offered a significant contribution. As the new contribution added to the auditing research, the study categorised the qualitative factors into three main groups and investigated whether there are different impacts among these groups on the materiality auditing decisions.

5. Despite the fact that the existing literature has argued that there are different impacts of quantitative and qualitative factors on the materiality auditing decisions as well as the necessity of separation, no empirical research investigated these issues comprehensively in Libya. Conversely, this thesis investigated and determined the important factors relating to
the materiality auditing and addressed the necessary separation of quantitative and qualitative materiality factors in Libya.

7.4.3 Research Limitations

The primary purpose of this thesis was to investigate the materiality issue from the Libyan external auditors’ perspective. Firstly, as this thesis is the first study to explore the materiality auditing in Libya, one of the most significant limitations of this study is the lack of adequate local research relating to the materiality auditing. Secondly, some findings of this study may not be applicable to all developing countries since each country has a unique socio-economic environment.

7.4.4 Future Research

This study provided an adequate background and highlighted main starting points for future auditing research relating to the materiality auditing.

Firstly, in terms of the auditors’ responsibility issue, regarding the materiality concept towards user groups of the financial statements, future studies can determine the relationship (correlation analysis) between the auditors’ responsibility, guidelines of the materiality auditing and the legal requirements. In other words, future studies are needed to address this issue related to the broad concept of the auditors’ responsibility in the materiality auditing decisions. This would be an important contribution in order to protect auditors’ rights as well as the rights of user groups of the financial statements.

Secondly, as mentioned previously, this thesis aimed to explore whether there are any significant differences in the impact of three forms of the quantitative factors on the materiality auditing decisions. Although the study attempted to interpret the reasons for these differences, it is suggested that future research should investigate the relationships among these factors.

Thirdly, this research offered an important contribution to the literature by exploring the qualitative factors, categorising these factors based on their characteristics and investigating
Chapter 7: Discussion and Conclusion

the extent of their impacts on the materiality auditing decisions. Future research should examine the relationship between these factors and the business environment.

Fourthly, despite the research offering a general overview of the relationship between the quantitative and qualitative materiality factors, an important suggestion for future research is to examine the relationship between the quantitative and qualitative factors in order to establish a new model for materiality auditing decisions.

Finally, future research should investigate the situation of accounting profession after 2011 revolution in Libya.
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Appendices

Appendix A

An Approved Letter from Human Research Ethic Committee of faculty of Business and Law at Deakin University

27 February 2012

Dear Mansour & Soheila

BL-EC 5-12 A Study of Materiality Auditing-A case study from Libya

Thank you for submitting the above project for consideration by the Faculty Human Ethics Advisory Group (HEAG). The HEAG recognised that the project complies with the National Statement on Ethical Conduct in Research Involving Humans (2007) and has approved it. You may commence the project upon receipt of this communication.

The approval period is for three years. It is your responsibility to contact the Faculty HEAG immediately should any of the following occur:

- Serious or unexpected adverse effects on the participants
- Any proposed changes in the protocol, including extensions of time
- Any changes to the research team or changes to contact details
- Any events which might affect the continuing ethical acceptability of the project
- The project is discontinued before the expected date of completion.

You will be required to submit an annual report giving details of the progress of your research. Failure to do so may result in the termination of the project. Once the project is completed, you will be required to submit a final report informing the HEAG of its completion.

Please ensure that the Deakin logo is on the Plain Language Statement and Consent Forms. You should also ensure that the project ID is inserted in the complaints clause on the Plain Language Statement, and be reminded that the project number must always be quoted in any communication with the HEAG to avoid delays. All communication should be directed to katrina.fleming@deakin.edu.au

The Faculty HEAG and/or Deakin University Human Research Ethics Committee (HREC) may need to audit this project as part of the requirements for monitoring set out in the National Statement on Ethical Conduct in Research Involving Humans (2007).

If you have any queries in the future, please do not hesitate to contact me.

We wish you well with your research.

Kind regards,

Katrina Fleming
HEAG Secretariat
Faculty of Business and Law
Appendix B

Questionnaire of the Research: A study of Materiality Auditing: Case Study from Libya

Dear respondents

You are chosen by the researcher because of your position in the auditing profession. Your participation in this study will help the researcher to determine developmental areas in materiality auditing and contribute towards the development of guidelines for the auditing profession in Libya.

The main aim of this research is to understand the extent to which Libyan external auditors are familiar with the concept of materiality audit and the factors that affect the assessment of materiality during audit processes. In addition, this research will investigate the extent to which Libyan external auditors have adopted international accounting or auditing standards in the implementation of materiality audit. This study will also provide participants with the opportunity to offer their opinion on issues associated with materiality audit and the auditing profession in Libya.

This research has been approved by the Human Research Ethics Committee of Deakin University. Thus, your personal information and answers will be strictly confidential and anonymous.

The questionnaire consists of five groups of questions; auditors’ view of materiality auditing issues, auditors’ assessment of materiality decisions, quantitative factors that affect materiality decision, qualitative factors and the general information about the participants. Your cooperation is essential for the success of the study and it should take no more than 15 minutes approximately. With grateful thanks and appreciation for your cooperation in this study.

Please feel free to call or email the researcher clarify any issues that may arise.

Researcher’s name: Mansour Alferjani
Deakin University
Faculty: Business and Law
School: Deakin Graduate School of Business
Contact:
Phone (in Australia): 0061392445547 Mobile (in Australia) 0061403406302
Phone (in Libya): 00218535322400 Mobile (in Libya) 00218927982345
Email: malf@deakin.edu.au OR ma_elferjani@yahoo.com

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To answer the questions of this questionnaire:
- Put ✓ under the choice that describes your answer.
- Circle the number or the letters that best describes your answer.
- In some questions you might need to write down your answer.

Main concepts of this study:
- Materiality audit is defined as the concept that requires all material financial information be communicated in auditing report.
- Materiality factors are defined as classification of information (quantitative and qualitative) that should be kept when making materiality decisions.

**Part one: Auditors’ view of materiality auditing issues**

1. From your own experience, what does a materiality auditing mean?

2. To what extent do you agree or disagree on the following sentences which related to materiality audit:

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderate</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The concept of materiality audit is a difficult concept</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The materiality concept in the auditing processes is important</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The external auditors should have a responsibility for making the materiality auditing decisions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Do you think it is necessary in your work as an external auditor to have guidelines for making materiality decision?

<table>
<thead>
<tr>
<th></th>
<th>Not necessary at all</th>
<th>Not necessary</th>
<th>Moderate</th>
<th>Necessary</th>
<th>Very necessary</th>
</tr>
</thead>
</table>
Could you please explain why?

4. Does your office / firm have followed any professional guidelines or benchmarks for making materiality decision?

<table>
<thead>
<tr>
<th>Never at all</th>
<th>In limited processes</th>
<th>Some times</th>
<th>Often</th>
<th>In almost process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. If you answered not “never at all”, please explain the source of those guidelines

<table>
<thead>
<tr>
<th>Libyan standards</th>
<th>Arabic standards</th>
<th>Standards from developing countries</th>
<th>International standards</th>
<th>Others, please specify</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. If you answered “never at all”, could you please explain why?

For the Lybian auditing profession as follow:

5. If you answered “never at all” to Question 4, who do you think should be responsible for issuing the materiality benchmarks?

<table>
<thead>
<tr>
<th>National governmental laws</th>
<th>Libyan Accounting and Auditing Association</th>
<th>International Accounting Standards Boards</th>
<th>International Auditing and Assurance Standards Board</th>
<th>Other (Please specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. In which area do you think that the international accounting firms can have an impact on the Libyan auditing profession as follow?

<table>
<thead>
<tr>
<th>Education and training</th>
<th>Putting the national auditing standards and guidelines</th>
<th>Providing services to special industry (Please specify)</th>
<th>Others (Please specify)</th>
<th>No impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. To what extent do you agree that the international accounting and auditing standards agreement are beneficial to Libyan auditors for making materiality decisions?

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderate</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. If your answer to Question 7 is “Disagree or strongly disagree”, please rank the below factors that make international accounting and auditing standards non beneficial to Libyan auditors. (From 1 = most important to 5 = less important)

<table>
<thead>
<tr>
<th>The factor</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The differences between the Libyan economic system and other systems.</td>
<td></td>
</tr>
<tr>
<td>The restrictions from national regulations and laws for applying international accounting and auditing standards.</td>
<td></td>
</tr>
<tr>
<td>The Libyan external auditors have no adequate knowledge about international accounting and auditing standards.</td>
<td></td>
</tr>
<tr>
<td>The social and cultural reasons</td>
<td></td>
</tr>
<tr>
<td>Others please specify.........................................................................</td>
<td></td>
</tr>
</tbody>
</table>

**Part two: Auditors’ assessment of materiality decisions**

1. When you assess item or items in the financial statements for materiality, which of the following sources do you rely on as the primary source of guidance? Please rank the below sources that you rely on as the primary source of guidance (From 1 = most important to 5 = less important)

<table>
<thead>
<tr>
<th>The source of materiality guidelines</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Libyan government’s laws and regulations</td>
<td></td>
</tr>
<tr>
<td>The accounting and auditing standards from the Libyan Accounting and auditing Association.</td>
<td></td>
</tr>
<tr>
<td>The international accounting and auditing standards.</td>
<td></td>
</tr>
<tr>
<td>The accounting and auditing standards from the developed nations.</td>
<td></td>
</tr>
<tr>
<td>Others please specify.........................................................................</td>
<td></td>
</tr>
</tbody>
</table>
2. To what extent do you agree the following factors have contributed to the development of materiality audit in Libya?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderate</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Libya’s laws and regulations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Libyan accounting and auditing standards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The influence of international standards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The influence of standards in developing countries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Which of the following user groups do you consider to provide material information: Please rank the below groups according to the requirements of materiality concept. (From 1 = most important to 5 = less important)

<table>
<thead>
<tr>
<th>Group</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The government and its agencies</td>
<td></td>
</tr>
<tr>
<td>Tax authority</td>
<td></td>
</tr>
<tr>
<td>Owners and managers</td>
<td></td>
</tr>
<tr>
<td>Investors</td>
<td></td>
</tr>
<tr>
<td>Others (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

4. To what extent in your materiality decision do you place importance on following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not important at all</th>
<th>Little important</th>
<th>Moderate</th>
<th>Important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance sheet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income statement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash flow statement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notes to the financial statements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Do you have any difficulty in understanding the following financial statements when making materiality decisions?

<table>
<thead>
<tr>
<th></th>
<th>Very difficult</th>
<th>Some difficult</th>
<th>Moderate</th>
<th>Little difficult</th>
<th>Not difficult at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance sheet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income statement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash flow statement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notes to the financial statements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. If your answer to Question 5 is “Very difficult”, please explain why you cannot understand those statements?

........................................................................................................................................
........................................................................................................................................

7. To what extent do you find that the financial statements published by companies in Libya, provide adequate information for your following decisions?

<table>
<thead>
<tr>
<th></th>
<th>Not adequate at all</th>
<th>Not adequate</th>
<th>Moderate</th>
<th>Adequate</th>
<th>Very adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make decisions based on the assessment of past information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make decisions based on the assessment of current information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make decisions based on the assessment of future information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part three: Quantitative forms and factors that affect materiality decision

(Quantitative factors are those factors can be expressed numerically)

1. To what extent do you think the following forms of the quantitative factors of materiality, provide adequate information for your materiality decision?

<table>
<thead>
<tr>
<th>The form</th>
<th>Not adequate at all</th>
<th>Not adequate</th>
<th>Moderate</th>
<th>Adequate</th>
<th>Very adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) The absolute value of the item or items being audited</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) The item’s position in the financial statement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) A percentage of the item or items being audited</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. If your answer to Question 1 “The absolute value of the item or items being audited” is adequate or very adequate, could you please indicate what would be the proper amount? (otherwise go to Question 3)

<table>
<thead>
<tr>
<th>1000 Libyan dinar (LYD)</th>
<th>More than 1,000 and up to LYD 5,000</th>
<th>More than 5,000 and up to LYD 10,000</th>
<th>More than 10,000 and up to LYD 50,000</th>
<th>More than LYD 50,000</th>
<th>Other (please specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. If your answer to Question 1 “The item’s position in the financial statement” is adequate or very adequate, please indicate to what extent you agree or disagree that the following items affect decisions on materiality auditing? (otherwise go to Question 4)

<table>
<thead>
<tr>
<th>No</th>
<th>The item</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderate</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cash</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Bank balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Total value of inventories</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Market value of inventories</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Net value of fixed assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Amount of intangible assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>The item</td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Moderate</td>
<td>Agree</td>
<td>Strongly agree</td>
</tr>
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<td>----------</td>
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</tr>
<tr>
<td>7</td>
<td>Total assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Total value of loans and long term liabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Stockholder Equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Issued capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Revenue of the ordinary activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Revenue of the non-ordinary activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Total expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Total profits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Net income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Accumulated depreciation for each item of fixed assets</td>
<td></td>
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<tr>
<td>17</td>
<td>Other (please specify).........................</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

4. If your answer to Question 1 “A percentage of the item or items being audited” is adequate or very adequate, could you please indicate to what extent you agree or disagree with the following criteria and then if you are agree or strongly agree please indicate what would be the percentage?

<table>
<thead>
<tr>
<th>Relevant criteria</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderate</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>5%</th>
<th>10%</th>
<th>Other %</th>
</tr>
</thead>
<tbody>
<tr>
<td>The percentage of the item in the balance sheet relative to the total assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The percentage of the item in the balance sheet relative to total Capital.</td>
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</tr>
<tr>
<td>The percentage of the item in the balance sheet relative to the working capital</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relevant criteria</td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Moderate</td>
<td>Agree</td>
<td>Strongly agree</td>
<td>5%</td>
<td>10%</td>
<td>Other %</td>
</tr>
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<td>---------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>The percentage of the item in the balance sheet relative to its group</td>
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</tr>
<tr>
<td>The percentage of the item in the income statement relative to the total income</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>The percentage of the item in the income statement relative to net income</td>
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</tr>
<tr>
<td>The percentage of the item in the income statement relative to net sales</td>
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<td></td>
</tr>
<tr>
<td>The percentage of the item in the income statement relative to its group.</td>
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<td></td>
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</tr>
<tr>
<td>The percentage of reduction of the item’s account.</td>
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<tr>
<td>Other (please specify)</td>
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<td>..........................................................</td>
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<td></td>
</tr>
</tbody>
</table>
Part four: Qualitative factors that affect materiality decision

(Qualitative factors are those factors cannot be directly expressed numerically)

This part of the questionnaire lists qualitative factors that could affect materiality decisions.

1. Please indicate to what extent you agree or disagree that the following qualitative factors affect your decisions on materiality auditing?

<table>
<thead>
<tr>
<th>No</th>
<th>The factor</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderate</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The industry in which the company operates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The nature of the entity’s activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Corporate size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The nature of the item</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The efficient internal auditing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Accountancy policies and regulations that have been used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Changing in accounting policies and the reasons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Application of controlled or uncontrolled managerial policies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Description of major types of products information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Information on corporate social responsibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Details of revenue sources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Details of long term debt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Description of method used to determine the cost of inventories</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>This is the first year that your office/firm has conducted an audit of the company</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Your office / firm has audited the company for few past years and has not experienced any major errors or frauds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>The factor</td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Moderate</td>
<td>Agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>----</td>
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<td>-------</td>
<td>----------------</td>
</tr>
<tr>
<td>16</td>
<td>In the past, management has been reluctant to accept your audit judgment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>There has been a high turnover of top management in the past few years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>There has been a high turnover of accountants in the past few years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>The result from previous audit found many errors or frauds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Users of financial statements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Disclosure requirements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Technological situation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Social and cultural influence (Voluntary Disclosure)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Gender of the accountants (Male or female)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part five: The relationship between quantitative and qualitative factors that affect materiality auditing decisions

This part of the questionnaire will address the relationship between qualitative and quantitative factors and how are the Libyan external auditors going to apply quantitative and qualitative factors for making materiality decisions.

1. In your opinion, which factors (quantitative or qualitative) have strong impacts on the materiality auditing decision? Why?

........................................................................................................................................
........................................................................................................................................

2. Do you think it is necessary to separate quantitative and qualitative factors for materiality?
   a. Yes. Could you please explain why?
   ........................................................................................................................................
   ........................................................................................................................................
   b. No. Could you please explain why?
   ........................................................................................................................................
   ........................................................................................................................................

Part Six: General information:

1. Gender: please put ✓ under your gender
   
   Male  Female

2. Could you please indicate your highest educational qualification? Please put ✓ under your qualification

<table>
<thead>
<tr>
<th>Secondary school</th>
<th>Bachelor degree</th>
<th>Master degree</th>
<th>PhD degree</th>
<th>Other, please specify</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Qualification place of study (for your highest level of education), please put ✓ under the place of your highest level of education

<table>
<thead>
<tr>
<th>Libya</th>
<th>Egypt</th>
<th>The UK</th>
<th>The USA</th>
<th>Other, please specify</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Could you please indicate your professional qualification?

<table>
<thead>
<tr>
<th>Association of Chartered Certified Accountants (ACCA)</th>
<th>Institute of Chartered Accountants of Scotland (ICAS)</th>
<th>Association of Certified Public Accountants (ACPA)</th>
<th>Arab Society for Certified Accountants (ASCA)</th>
<th>Other (please specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

5. Are you employed by the Governmental Audit office (GAO) or a Private Local Audit Office (PAO) or a Private International Audit Office (PIAO)?

<table>
<thead>
<tr>
<th>GAO</th>
<th>P LAO</th>
<th>PIAO</th>
<th>Other (please specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

6. How long have you been working as an external auditor?

<table>
<thead>
<tr>
<th>Up to 5 years</th>
<th>More than 5 and up to 10 years</th>
<th>More than 10 and up to 20 years</th>
<th>More than 20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

7. Do you have experience as a specialist external auditor in any of the following industries?

<table>
<thead>
<tr>
<th>Oil industry</th>
<th>Steel industry</th>
<th>Nutrition industry</th>
<th>Services industries (e.g. Telecommunication, Health, Education, Taxations)</th>
<th>Non-specialist external auditor</th>
<th>Other (please specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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Comments

Please feel free to use the space below to make any comments that you feel should be considered in the study

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Thank you once more
Appendix C: Questionnaire of the Research (Arabic version)

استبيان حول مفهوم الأهمية النسبية في مجال المراجعة الخارجية

السيد / السيدة: المراجعي الخارجي للحسابات
تحية طيبة

يقوم الباحث بدراسة حول مفهوم الأهمية النسبية في المراجعة الخارجية - دراسة للحالة الليبية. وتمتد هذه الدراسة إلى التعرف على مفهوم الأهمية النسبية في المراجعة من جهة نظر المراجعي الخارجي الليبي وكذلك تحديد العوامل التي تحدد الأهمية النسبية للمنصرف (الناصر) محل المراجعة الذي يؤثر على نتائج القوانين المالية عليه، فإن قبولكم المشاركة في هذا الاستبيان سيكون له الأثر الكبير في الرفع من جودة مهنة المراجعة الخارجية في ليبيا.

منصور الفرجاني
جامعة ديكن في أستراليا
كلية الأعمال والقانون
لاي استفسار أو توضيح برجي الاتصال أو ارسال ايميل
رقم الهاتف: داخل ليبيا 2345 092798 092823 0630206 061403 061404
البريد الإلكتروني: ma_elferjani@yahoo.com

وإلى الرد على أسئلة الاستبيان برجي ملاحظة الأتي:
- اختيار الإجابات الصحيحة من بين الخيارات المتاحة.
- بعض الأسئلة تحتاج إلى توضيح الإجابة عليها، هنا نرجو منكم التوضيح في الفراغ المخصص.

نُقدر لكم اهتمامكم ووقتكم الممنوح لاستكمال هذا الاستبيان

المفاهيم الأساسية في هذا الاستبيان

- الأهمية النسبية في مراجعة الحسابات المالية تعني توفير المعلومات المهمة في القوانين المالية، والتي تؤثر في النتائج الختامية للقائمة المالية المنشورة.
- العوامل الكمية للأهمية النسبية في المراجعة هي التي يمكن تحديدها بقيم أو نسب مئوية مثلى قيمة
- العوامل الوصفية للأهمية النسبية في المراجعة هي التي لا يمكن تحديدها كميا - رقما - بسهولة مثل نوع الصناعة والحكم الشخصي للمراجع.

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الجزء الأول - نظرية المراجعات الخارجية الليبية لمفهوم الأهمية النسبية في المراجعة

1. من خلال خبرتك ماذا تعني الأهمية النسبية في المراجعة؟

2. أي درجة توافق على العبادات التالية حول مفهوم الأهمية النسبية في المراجعة؟

<table>
<thead>
<tr>
<th>المراجعة</th>
<th>لا نتوافق</th>
<th>توافق شدة</th>
</tr>
</thead>
<tbody>
<tr>
<td>مفهوم الأهمية النسبية في المراجعة صعب الفهم.</td>
<td>موافق</td>
<td>موافق</td>
</tr>
<tr>
<td>مفهوم الأهمية النسبية في عملية المراجعة هو مفهوم مهم جدا.</td>
<td>موافق</td>
<td>موافق</td>
</tr>
<tr>
<td>المراجع الخارجي يجب أن يكون مستندًا عن مفهوم الأهمية النسبية في المراجعة.</td>
<td>موافق</td>
<td>موافق</td>
</tr>
</tbody>
</table>

3. من وجهة نظرك ما مدى أهمية أن تكون هناك معايير للأهمية النسبية ترشد المراجع الخارجي عند اتخاذ قرارات تحديد الأهمية النسبية لعناصر القوائم المالية.

<table>
<thead>
<tr>
<th>العنصر</th>
<th>غير مهم إطلاعاً</th>
<th>مهم جداً</th>
<th>مهم</th>
<th>موافق</th>
</tr>
</thead>
<tbody>
<tr>
<td>وجود معايير للأهمية النسبية ترشد المراجع الخارجي عند اتخاذ قرار تحديد الأهمية النسبية لعناصر القوائم المالية.</td>
<td>موافق</td>
<td>موافق</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

•
•
•

4. هل مكتبكم لديه أو يتبع إرشادات أو معايير مهنية عند إخراج قرارات الأهمية النسبية؟

<table>
<thead>
<tr>
<th>المراجعة</th>
<th>لا يتبين</th>
</tr>
</thead>
<tbody>
<tr>
<td>مكتبنا يتبع إرشادات ومعايير الأهمية النسبية في المراجعة.</td>
<td>موافق</td>
</tr>
</tbody>
</table>

• إذا كانت إجابتك ب(لا يتبين) فإن فضلك وضح مصادر الإرشادات والمعيار التي تتبعها بخصوص الأهمية النسبية في عمليات المراجعة.

<table>
<thead>
<tr>
<th>المصدر</th>
<th>لا يتبين</th>
<th>موافق</th>
</tr>
</thead>
<tbody>
<tr>
<td>معايير أخرى/حدود</td>
<td>موافق</td>
<td>موافق</td>
</tr>
<tr>
<td>معايير دولية</td>
<td>موافق</td>
<td>موافق</td>
</tr>
<tr>
<td>معايير عربية</td>
<td>موافق</td>
<td>موافق</td>
</tr>
</tbody>
</table>

• إذا كانت إجابتك ب(لا يتبين) فإن فضلك وضح الإسباب من وجهة نظرك:

•

5. فيما يخص إجابة السؤال (4) إذا كانت إجابتك ب(لا يتبين) فإن فضلك وضح الجهة التي تعتقد أنها يجب أن تكون مسؤولة عن إصدار معايير وإرشادات الأهمية النسبية في عملية المراجعة في ليبيا.

<table>
<thead>
<tr>
<th>العنصر</th>
<th>موافق</th>
</tr>
</thead>
<tbody>
<tr>
<td>الهيئة المسؤولة عن إصدار معايير وإرشادات الأهمية النسبية في عملية المراجعة في ليبيا.</td>
<td>موافق</td>
</tr>
</tbody>
</table>

255
6. من وجهة نظرك ما هو المراقب المحاسبة والمراجعة الدولية على مهنة المراجعة في ليبيا؟

<table>
<thead>
<tr>
<th>العيب—الحالة</th>
<th>تأثير شركات المحاسبة والمراجعة الدولية على مهنة المراجعة في ليبيا</th>
</tr>
</thead>
<tbody>
<tr>
<td>ليس لها تأثير</td>
<td>أشار أخرى/ أذكرها</td>
</tr>
<tr>
<td>توفير الخدمات الخاصة بالمهنة</td>
<td>معايير محلية لمعايير المراجعة والتدريب</td>
</tr>
<tr>
<td>وضع إرشادات إلى قطاعات خاصة</td>
<td>المعايير المحاسبية</td>
</tr>
</tbody>
</table>

7. إلى أي درجة توافق على أن الإرشادات والمعايير الدولية للأهمية النسبية للمراجعة مفيدة للمراجع الخارجي الليبي عند اتخاذ قرار الأهمية النسبية لعناصر القوائم المالية أثناء عملية المراجعة؟

<table>
<thead>
<tr>
<th>العيب—الحالة</th>
<th>الإرشادات والمعايير الدولية للأهمية النسبية للمراجعة مفيدة للمراجع الخارجي الليبي عند اتخاذ قرار الأهمية النسبية لعناصر القوائم المالية أثناء عملية المراجعة</th>
</tr>
</thead>
<tbody>
<tr>
<td>موافق بشدة</td>
<td>موافق</td>
</tr>
<tr>
<td>موافق</td>
<td>محايد</td>
</tr>
<tr>
<td>غير موافق</td>
<td>غير موافق بشدة</td>
</tr>
</tbody>
</table>

8. بالرجوع لإجابة الفقرة (7) إذا كانت إجابتك (غير مفيدة أبداً / غير مفيدة)، فمن وجهة نظرك، ما الذي يجعل من المعايير الدولية للمحاسبة والمراجعة غير مفيدة للمراجع الخارجي الليبي؟

<table>
<thead>
<tr>
<th>العيب—الحالة</th>
<th>رتبة التأثير</th>
</tr>
</thead>
<tbody>
<tr>
<td>النظام الاقتصادي الليبي</td>
<td>عوامل أخرى</td>
</tr>
</tbody>
</table>
الجزء الثاني - تقييم المراجع الخارجي الليبي لقرارات الأهمية النسبية في عملية المراجعة

1. عند تقييم للأهمية النسبية للعنصرين أو لعناصر القوائم المالية، ما هي المصادر التي تعتمد عليها في الحصول على إرشادات ومعايير الأهمية النسبية في المراجعة؟

<table>
<thead>
<tr>
<th>المصادر</th>
<th>درجة الاعتماد</th>
</tr>
</thead>
<tbody>
<tr>
<td>القوانين واللوائح الصادرة من الحكومة الليبية.</td>
<td></td>
</tr>
<tr>
<td>المعايير والمؤشرات المصدرة من الجمعية الليبية للمحاسبين والمراجعين القانونيين.</td>
<td></td>
</tr>
<tr>
<td>المعايير الدولية للمحاسبة والمراجعة.</td>
<td></td>
</tr>
<tr>
<td>معايير المحاسبة والمراجعة من دول العالم الثالث.</td>
<td></td>
</tr>
</tbody>
</table>

2. من وجهة نظرك أي من العوامل التالية قد تساهم في تطوير مفهوم الأهمية النسبية في عملية المراجعة في ليبيا؟

<table>
<thead>
<tr>
<th>العامل</th>
<th>موافق بشدة</th>
<th>موافق بchwda</th>
<th>مخالف</th>
</tr>
</thead>
<tbody>
<tr>
<td>القوانين واللوائح الليبية.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>معايير المحاسبة والمراجعة الليبية</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>تأثير معايير المحاسبة والمراجعة الدولية.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>معايير المحاسبة والمراجعة من دول العالم الثالث.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. من وجهة نظرك، ما هي أهم الجهات الأكثر اهتماماً أو (الأكثر استخداماً أو الأكثر تأثراً) بالمعلومات المحاسبية الهامة نسبياً و التي تمت مراجعتها؟

<table>
<thead>
<tr>
<th>الجهات</th>
<th>درجة الاهتمام أو الاستخدام أو التأثير</th>
</tr>
</thead>
<tbody>
<tr>
<td>الهيئات الحكومية.</td>
<td></td>
</tr>
<tr>
<td>مصلحة الضرائب.</td>
<td></td>
</tr>
<tr>
<td>مدارا الشركه والمساهمين فيها.</td>
<td></td>
</tr>
<tr>
<td>المستثمرين.</td>
<td></td>
</tr>
<tr>
<td>الجهات أخرى.</td>
<td></td>
</tr>
</tbody>
</table>

ذكرها:...
5. ما هي درجة الصعوبة في فهم القوائم المالية التالية عند اتخاذ قرار الأهمية النسبية في المراجعة؟

<table>
<thead>
<tr>
<th>القائمة المالية</th>
<th>غير مهمة إطلاقاً</th>
<th>غير مهمة</th>
<th>محايد</th>
<th>مهمة</th>
<th>صعبة جداً</th>
</tr>
</thead>
<tbody>
<tr>
<td>قائمة المركز المالي</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>قائمة الدخل</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>قائمة التدفقات النقدية</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>الملاحظات المرفقة مع القوائم المالية</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. بالرجوع لإجابة الفقرة (5) إذا كانت إجابتك صعبة جداً / صعبة، أرجوا منك التوضيح حول صعوبة فهم القوائم المالية عند تحديد الأهمية النسبية لعناصر القوائم المالية؟

7. من وجهة نظرك حدد ما مدى ملاءمة المعلومات المتسربة بالقوائم المالية الصادرة عن الشركات الليبية، عملية اتخاذ القرارات التالية:

<table>
<thead>
<tr>
<th>الورقة</th>
<th>ملاءمة جيدة</th>
<th>ملاءمة</th>
<th>محايد</th>
<th>غير ملاءمة</th>
<th>غير ملاءمة إطلاقاً</th>
</tr>
</thead>
<tbody>
<tr>
<td>القرارات التي تعمق على معلومات متعلقة بالاضافي.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>القرارات التي تعمق على معلومات متعلقة بالحاضر</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>القرارات التي تعمق على معلومات متعلقة بالمستقبل</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
الجزء الثالث ـ العوامل الكمية التي تؤثر على قرارات الأهمية النسبية في المراجعة

- العوامل الكمية تعني تلك العوامل التي يمكن تحديدها رقمياً.

1. إلى أي درجة تعتمد على أشكال العوامل الكمية التالية للأهمية النسبية توفر معلومات كافية عند اتخاذ قرارك للاهمية النسبية؟

<table>
<thead>
<tr>
<th>شكل العامل</th>
<th>ملائمة جداً</th>
<th>ملائمة</th>
<th>محايد</th>
<th>غير ملائمة</th>
<th>غير ملائمة إطالة</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. القيمة المطلقة للعنصر.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. موقع العنصر في القائم المالية.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ج. النسبة المنوية للعنصر أو العناصر مجمل المراجعة.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>شكل آخر ـ ارجوا تحديده</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. في السؤال رقم 1 إذا كانت اجابةك أن القيمة المطلقة للعنصر توفر المعلومات الكافية عند تحديد أهميته النسبية في القوائم المالية ـ فما هي القيمة العنصر التي ترى أنها تؤثر على نتيجة القوائم المالية؟

<table>
<thead>
<tr>
<th>ضع علامة (✓) أمام القيمة التي ترى أنها تؤثر على نتيجة القوائم المالية</th>
<th>القيمة المطلقة</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000 دينار ليبي</td>
<td></td>
</tr>
<tr>
<td>أكثر من 1000 إلى 5000 دينار ليبي</td>
<td></td>
</tr>
<tr>
<td>أكثر من 5000 إلى 10000 دينار ليبي</td>
<td></td>
</tr>
<tr>
<td>أكثر من 10000 إلى 50000 دينار ليبي</td>
<td></td>
</tr>
<tr>
<td>أكثر من 50000 دينار ليبي</td>
<td></td>
</tr>
<tr>
<td>قيمة أخرى ـ أرجوا تحديدها</td>
<td></td>
</tr>
</tbody>
</table>

3. في السؤال رقم 1 إذا كنت اجابت أن موقع العنصر في القوائم المالية يوفر المعلومات الكافية عند تحديد أهميته النسبية في القوائم المالية ـ إلى أي درجة توافق أو لاتوافق أن العناصر التالية تؤثر على قرارات الأهمية النسبية؟

<table>
<thead>
<tr>
<th>العنصر</th>
<th>موافق بشدة</th>
<th>موافق</th>
<th>محايد</th>
<th>غير موافق بشدة</th>
</tr>
</thead>
<tbody>
<tr>
<td>الخزينة الموجودة بالمؤسسة</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>حساب المصرف</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>قيمة التكلفة للمخزون</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>القيمة السوقية للمخزون</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>صافي قيمة الأصول الثابتة</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>قيمة الأصول غير الملمسة</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>إجمالي الأصول</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>القيمة الإجمالية للقرض والالتزامات طويلة الأجل</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>أسهم المساهمين</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>رأس المال</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>العنصر</td>
<td>موافق بشدة</td>
<td>موافق بقية</td>
<td>محايد</td>
<td>لا موافق بقية</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
<td>------------</td>
<td>-------</td>
<td>---------------</td>
</tr>
<tr>
<td>الدخل من النشاط العادي</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>الدخل من الأنشطة الأخرى</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>إجمالي المصرفات</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>إجمالي الأرباح</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>صافي الدخل</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>مجموع الاستهلاك للأصول الثابتة</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. في السؤال رقم 1 إذا كنت اجابتك أن النسبة المنوية للعنصر أو للعناصر محل المراجعة كمؤشر لأهميتها النسبية في الأدوات المالية، فإن أي درجة ترى النسب المنوية العالى مهمة في اتخاذ قرار الأهمية النسبية للعنصر محل المراجعة؟ وإذا كانت الإجابة (أ) (مواد بشدة) أو (مواد) أرجوا منك تحديد مقدار النسبة المنوية التي تجعل من العنصر ذا أهمية نسبية؟

<table>
<thead>
<tr>
<th>علاقة العنصر</th>
</tr>
</thead>
<tbody>
<tr>
<td>نسبة العنصر في قائمة المركز المالي إلى إجمالي الأصول</td>
</tr>
<tr>
<td>نسبة العنصر في قائمة المركز المالي إلى إجمالي رأس المال</td>
</tr>
<tr>
<td>نسبة العنصر في قائمة المركز المالي إلى رأس المال العام</td>
</tr>
<tr>
<td>نسبة العنصر في قائمة المركز المالي إلى مجموعه بالقائمة</td>
</tr>
<tr>
<td>نسبة العنصر في قائمة الدخل إلى إجمالي الدخل</td>
</tr>
<tr>
<td>نسبة العنصر في قائمة الدخل إلى صافي الدخل</td>
</tr>
<tr>
<td>نسبة العنصر في قائمة الدخل إلى صافي المبيعات</td>
</tr>
<tr>
<td>نسبة العنصر في قائمة الدخل إلى مجموعه بالقائمة</td>
</tr>
<tr>
<td>نسبة الاخير التراكمي للعنصر - التغيير في قيمة العنصر -</td>
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<tr>
<td>نسب أخرى - أرجو تحديدها -</td>
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260
الجزء الرابع - العوامل الوصفية التي تؤثر على قرارات الأهمية النسبية في المراجعة

- العوامل الوصفية تعني تلك العوامل التي لا يمكن تحديدها رقمياً بسهولة.

<table>
<thead>
<tr>
<th>العامل المقابل</th>
<th>موافق بشدة</th>
<th>موافق</th>
<th>غير موافق بشدة</th>
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<tr>
<td>نوع الصناعة التي تعمل به المؤسسة</td>
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<tr>
<td>طبيعة تشغيل المؤسسة</td>
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<td>حجم المؤسسة</td>
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<td>طبيعة التنصر محلاً المراجعة</td>
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<td>كفاءة المراجعة الداخلية</td>
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<td>السياسات واللوائح المحاسبية المطبقة في المؤسسة</td>
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<td>تطبيق مبدأ المركزية أو الامركزية في الإدارة</td>
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<td>تواصل حول مصارف الإرباد</td>
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<td>قيام المراجع بمراجعة المؤسسة في السابق وعدم وجود اختفاء أو عيش بالقوائم المالية</td>
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<td>تقارير المراجعة الخارجية السابقة تشير إلى أخطاء وعيوب في القوائم المالية</td>
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<td>جنس معدات القوائم المالية - ذكر أو أنثى</td>
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<td>عوامل أخرى - ارجوا تحديدها</td>
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</tbody>
</table>

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الجزء الخامس - العلاقة بين العوامل الكمية والعوامل الوصفية التي تؤثر على قرارات الأهمية النسبية في المراجعة

1. من وجهة نظركم - تحدث أي العوامل (الكمية/الوصفية) أقدر تأثيره عند تحديد الأهمية النسبية للعناصر محل المراجعة على نتائج القوائم المالية؟

2. هل تعتقد أنه من الضروري الفصل بين العوامل الكمية والعوامل الوصفية عند إتخاذ قرارات الأهمية النسبية في المراجعة؟
   أ. نعم، من فضلك وضح السبب؟
   ب. لا، من فضلك وضح السبب؟

الجزء السادس - معلومات عامية حول المشارك في الاستبان

1. الجنس:

<table>
<thead>
<tr>
<th>ذكر</th>
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2. المستوى التعليمي:

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<th>بكالوريوس</th>
<th>ماجستير</th>
<th>دكتوراه</th>
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3. مكان حصولك على المؤهل:

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<th>ليبيا</th>
<th>مصر</th>
<th>بريطانيا</th>
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4. الشهادات المهنية:

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<tr>
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<th>جمعية المحاسبين القانونيين في استراليا</th>
<th>رابطة المحاسبين القانونيين</th>
<th>المجمع العربي للمحاسبين القانونيين</th>
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5. طبيعة وظيفة المراجع الخارجي:

<table>
<thead>
<tr>
<th>مراجع لدى جهية حكومية &quot;نيوان المراجعة المالية&quot;</th>
<th>مراجع لدى شركة مراجعة دولية</th>
<th>مراجع لدى شركة مراجعة محلية خاصة</th>
<th>مراجع لدى شركة مراجعة محلية خاصة</th>
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6. مدة الخبرة المهنية:

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<thead>
<tr>
<th></th>
<th>أقل من 5 سنوات</th>
<th>أقل من 10 سنوات</th>
<th>أقل من 20 سنة</th>
<th>20 سنة فأكثر</th>
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</thead>
<tbody>
<tr>
<td>ضع علامة (✓) تحت عدد السنوات عملك كمراجع خارجي</td>
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</tbody>
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7. الخبرة المهنية التخصصية:

| خبرات أخرى | لا توجد خبرة تخصصية | شركات تقديم خدمات الاتصالات أو الصحة أو التعليم أو الضرائب | شركات صناعة الحديد والصلب | شركات النفطية | ضع علامة (✓) تحت الخبرة المتخصصة في مراجعة الشركات

وفي الختام
لكم منا خالص التقدير والاحترام لتعاونكم معنا

ونرجو منكم إذا كان لديكم أي ملاحظات حول هذه الدراسة، نأمل تدوينها

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Appendix D: An Approved Translation Letter for the Questionnaire

To Whom it May Concern,

I hereby certify that I have reviewed the translation attached herein from English into Arabic and found that it is satisfactory for the questionnaire used in the study of "A Study of Materiality Auditing: Case Study from Libya" which was conducted by Mansour Alferjeni, PhD Candidate, Deakin Graduate School of Business, Faculty of Business and Law; Deakin University.

Yours Sincerely,

Mobile: 00218918646227 – 00218925237948
Email: tc_translation@hotmail.com